

**Tender for the development of the Knowledge Hub portal website and the operation  
management system under the Gerontechnology Platform  
for The Hong Kong Council of Social Service  
- Innovation and Technology for Ageing  
and Partner Organizations  
(Tender Ref. No.: ITAGPKH2)**

**Attachment - System Requirement Specification**

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# **1 Overview**

## **1.1 Project Background**

The inclusive one-stop Gerontech Platform (GP) aims to link up different stakeholders on the supply and demand sides of Gerontechnology and enhance synergy by the way of engagement. The Knowledge Hub (KH) under this GP will be served as an online repository of different resources for all stakeholders to facilitate information search, cross-sector partnership and collaboration.

## **1.2 System Overview**

A new system is to be developed to support the operation and data management of the GP and the KH, including generating analysis and statistical reports for internal management and reporting to external stakeholders under according to requirement of each modules, website or portals.

The purpose of this project is to provide a comprehensive solution to streamline the daily operation of GP. For example, event registration and management, submission and searching of knowledge items, case management and membership management. It should provide the ability of tracking status, generating reports and statistic through an integrated system approach and data should be exchanged between modules and enable it for authorized users to obtain during the operation.

## **1.3 System Implementation**

The Supplier is required to develop the new system with all the required system components specified in this System Requirement Specification, i.e. Cloud infrastructure, database, system security solution, etc.

The Supplier is required to go through a proper system implementation project life cycle, i.e. user requirement collection, system analysis and design, system development, system integration test, user acceptance test, data migration, system rollout, system nursing, system support and maintenance, etc., for ensuring the quality of the developed system.

The timeframe for this system implementation project is ~10 months. The Supplier has to provide project management service, by applying proven project management methodology, in order to make the project be completed within planned resources, time schedule and with acceptable quality.

To ensure the system security, the Supplier has to recruit a qualified third-party IT security service provider to conduct Security Risk Assessment and Audit (SRAA) for uncovering the system vulnerabilities. The Supplier has to improve the system security based on the results of SRAA exercises. Besides, the Supplier has to implement Virtual Private Network (VPN), anti-virus solution (server-side), Web Application Firewall (WAF), Secure Sockets Layer (SSL) certificates, etc. to provide sufficient protection to the system.

The Supplier has to build up a Cloud infrastructure, by using proven and reputable Infrastructure-as-a-Service solutions. After the system implementation, the Supplier also has to offer Cloud managing service, as an optional item, for our consideration.

To facilitate the system implementation, a working group with Collaborative Partners of GP will be formed. The working group will be coordinated by HKCSS and work closely with the Supplier throughout the system implementation lifecycle.

## **2 Major Components of Required Solution**

The system consists of the following major components. Suppliers have to propose a comprehensive and integrated solution for those major components.

### **2.1 Knowledge Hub**

#### **2.1.1 Public Website (includes the following modules)**

2.1.1.1 Front-end and CMS

2.1.1.2 Members Management module

2.1.1.3 Event Management module

2.1.1.4 Enquiry Case Management module with Referral mechanism

#### **2.1.2 Product Supplier Portal and NGO Portal (includes the following modules)**

2.1.2.1 Front-end and backend

2.1.2.2 Members Management module

2.1.2.3 Event Management module

2.1.2.4 Enquiry Case Management module with Referral mechanism

AND Backend admin console Members Management module to integrate all the above modules (in 4.1)

### **2.2 Cloud Infrastructure (Please refer to 9.3.1)**

### **2.3 System Security**

2.3.1 Virtual Private Network (VPN)

2.3.2 Web Application Firewall (WAF)

2.3.3 Secure Sockets Layer (SSL) certificates

2.3.4 Anti-virus for servers

### **3 Functional Requirements**

#### **3.1 Public Website**

##### **3.1.1 Front-end**

###### **3.1.1.1 Landing page**

3.1.1.1.1 Key visual of GP, Logos of SIEF, GP partners

3.1.1.1.2 Tabs/zones Links to the following sub-pages (but not limited to)

3.1.1.1.3 Items are displayed under various pre-defined categories in sub-pages.

3.1.1.1.4 Home pages and sub-pages should have availability of and facilitate

3.1.1.1.4.1 Displaying and playing videos and

3.1.1.1.4.2 Rolling banners

###### **3.1.1.2 About Us**

3.1.1.2.1 GP background

3.1.1.2.2 Introduction of SIEF and GP partners

###### **3.1.1.3 Events**

3.1.1.3.1 Event calendar and updates

3.1.1.3.1.1 List along with details of all forthcoming events should be mentioned under this section. When the date of event passes on the event should automatically be moved to archives section under Events.

3.1.1.3.1.2 User should be able to add filter for the showing only forthcoming events

3.1.1.3.2 Past events section

3.1.1.3.2.1 All items include press release, articles, Event-wise videos, and images which related to the event are available for User to view.

3.1.1.3.2.2 Link to the specific location of the items in sub-page of “Publication

and videos” and “Media Centre”

3.1.1.3.3 Online registration for events (Allow users to show categorized events, e.g. for public registration and “members-only” event)

3.1.1.3.3.1 Links to and processed by Event Registration Module

3.1.1.4 Consultation Services

3.1.1.4.1 Consultation Services under GP

3.1.1.4.2 Consultation Services by other organizations

3.1.1.5 Testing Support

3.1.1.5.1 Testing procedure and framework – Page content with layout of displaying images, videos and text elements

3.1.1.5.2 Application procedure – Page content with layout of displaying images, videos and text elements

3.1.1.5.3 List of information (suppliers that can offer solutions for testing, NGOs’ wish list of Gerontech solutions)

3.1.1.5.4 Testing reports and case sharing

3.1.1.6 Gerontechnology in Hong Kong

3.1.1.6.1 Gerontech product database and supplier information (including product information, photos, catalogues, and videos)

3.1.1.6.2 Introduction of Gerontech ecosystem in Hong Kong - Page content with layout of displaying images, videos and text.

3.1.1.7 Gerontechnology Overseas

(with url, pdf, images, video and text elements)

3.1.1.7.1 Overseas product/categorized product with detail information

3.1.1.7.2 Good practices

3.1.1.7.3 International Gerontech events without registration

3.1.1.8 Data & Information

3.1.1.8.1 Present Service Data in a dashboard with infographic

3.1.1.8.2 Statistical reports (in url, pdf, images)

- 3.1.1.8.3 Demographic data (in url, pdf, images)
- 3.1.1.8.4 Survey results (in url, pdf, images, video content)
- 3.1.1.9 Categorized contact list of professional experts
- 3.1.1.10 List of funding schemes, sponsorship, donations  
(with url, pdf, images and text elements)
- 3.1.1.11 Publication and videos
  - 3.1.1.11.1 GP Newsletters section for public users
    - 3.1.1.11.1.1 To subscribe by filling in email address only. (subscription processed and recorded by Members Management module)
    - 3.1.1.11.1.2 Current and past Newsletters should be displayed
    - 3.1.1.11.1.3 Viewable by clicking
    - 3.1.1.11.1.4 Are displayed by pre-defined order, e.g., month
- 3.1.1.12 Research reports / study reports
  - 3.1.1.12.1 Training tools and materials (Link to Portal - login required)
  - 3.1.1.12.2 Video Corner
    - 3.1.1.12.2.1 Event-wise video should be listed under this section. Each video would have a brief description. All videos would be shown in thumbnail (small) size and on clicking on the videos it should be opened in a new window with original size.
- 3.1.1.13 Media Centre
  - 3.1.1.13.1 Press release
  - 3.1.1.13.2 photo gallery
  - 3.1.1.13.3 promotion videos
- 3.1.1.14 Contact us and Enquiry
  - 3.1.1.14.1 Contact details
  - 3.1.1.14.2 Enquiry form (Data should be recorded and processed in Enquiry Case Management module)
  - 3.1.1.14.3 Information of GP service counter and hotline

#### 3.1.1.15 Search

3.1.1.15.1 Provision of Full text search on the website for all the content. On entering any keyword, the system must be able to search in all links, sub-links and sub sub-links and should provide links where that word is present. On clicking the link, the content should be displayed.

3.1.1.15.2 Portal for product suppliers (Link to Portal - login required)

3.1.1.15.3 Portal for NGOs (login required)

### 3.1.2 Public Website CMS

#### 3.1.2.1 Refer to Members management module

3.1.2.1.1 Process all public users account management includes roles and rights

#### 3.1.2.2 Refer to Knowledge Items module

3.1.2.2.1 Permission of the viewable items should be pre-defined by Admin Users

#### 3.1.2.3 Refer to Event management module

3.1.2.3.1 System processes the event registration request. All public User can only register the events categorized as “public event” For “members only” events, members need to login for registration.

#### 3.1.2.4 Refer to Enquiry Case management module

3.1.2.4.1 All filled-in information in the enquiry form by the visitors/Users should be available. Admin User should be able to view all filled-in information /feedback received for a particular date or for duration.

3.1.2.4.2 System provides category options for Users. Enquiry will be categorized by Users

3.1.2.4.3 Admin User should be able to send reply to the collected email

#### 3.1.2.5 Content Management system

3.1.2.5.1 Authority hierarchy - The system should support multiple usage authority levels, such as authorities to create, edit and approve selected sections of the

website.

3.1.2.5.2 Have a WYSIWYG editor and provide standard Word authoring features to enable User to the followings

3.1.2.5.2.1 Add and format text, links and images, audio or video to content areas

3.1.2.5.2.2 Create tabular layouts within a text area and apply styles without the need of HTML skills and in a content editor which is fully integrated in the system (no external editing software necessary for the above-mentioned markup).

3.1.2.5.2.3 Allow the User to format pages with a standard and centralized design without having to apply formatting manually; therefore, the system must support the creation, modification and deletion of templates.

3.1.2.5.2.4 Layout and content are managed separately (i.e., it must be possible to create and edit content without having to amend or create a template).

3.1.2.5.3 The system must include an image library, to upload, delete, search and use images in the various sections of the website.

3.1.2.5.4 The image library should be capable of automatically creating thumbnails or variations of images at predefined sizes.

3.1.2.5.5 The system must support the following preview and publication functions:

3.1.2.5.5.1 Save as unpublished (draft)

3.1.2.5.5.2 Preview

3.1.2.5.5.3 Publish immediately

3.1.2.5.5.4 Send for approval

3.1.2.5.5.5 Approve

3.1.2.5.5.6 Unpublish (rejected/approved)

3.1.2.5.5.7 Publication scheduling

3.1.2.5.5.8 Publication expiration date (automatic unpublish)

3.1.2.5.6 Content must be approved by users with approval permissions but can also



be revoked by the editors for further work, or even declined. If the content is approved, it is published to the live site.

A User who creates or edits a page and “Save as unpublished (draft)” must submit a request for approval before publishing. After submission, the page shows a status of “Send for approval” will be not be published directly. One level of Approver (User’s Manager) is able to reject a page. System will put that page back to “Unpublished (rejected)” status. Once the page is “Approved”, the page will be turned into “Unpublished (Approved)” status. User is able to select approved pages and “Publish immediately”

- 3.1.2.5.7 The system shall be capable of storing and categorizing documents, images, video and audio files. It must be possible to assign content types and metadata to repositories and to assign metadata values to objects (documents, images, video and audio files).
- 3.1.2.5.8 For each link created the Admin User would specify the title of page
- 3.1.2.5.9 In the Photo Gallery, Admin User able to add/update categories.
- 3.1.2.5.10 For any downloadable items on the website, Admin User should have the option to add/delete/modify the files pertaining to download section.
- 3.1.2.5.11 Have multilingual support and future scalability.
- 3.1.2.5.12 CMS must be compatible for common browser types, i.e., Google Chrome, MS Edge and IE
- 3.1.2.5.13 Images and contents should be adaptive and responsive to all formats, browsers, devices, operating systems, screen sizes, resolutions, etc.
- 3.1.2.5.14 Support ability to add contents/ delete contents/ change contents globally across all pages on the site or on specific areas of the site.
- 3.1.2.5.15 Movement of approved contents and changes should be automatic/ as per planned and stipulated date and time. Rollbacks should be available
- 3.1.2.5.16 Workflow must support automation from within including email reminders on due items and actions pending at various levels including appropriate escalations.
- 3.1.2.5.17 Application should support on demand creation of a "ready to print" copy of the content pages.
- 3.1.2.5.18 Archival of part or whole of the site should be supported with easy

restoration capability.

3.1.2.5.19 Support the content publishing scheduling facilities. The system should support the pre-set time function for posting or take- down of approved contents.

3.1.2.5.20 Provide multiple content templates for the creation of new webpages.

3.1.2.5.21 Support the creation of new online forms by using the reusable templates provided by the system\

3.1.2.5.22 Chinese characters conversion. The GP is using a Chinese character conversion platform converting between Traditional and Simplified Chinese characters.

## **3.2 Product Supplier Portal and NGO Portal**

### **3.2.1 Portal - Front end**

#### **3.2.1.1 Portal – Front end - Members Management module**

3.2.1.1.1 Registration is required which is pre-approved by Admin User. Only registered members can login to the dedicated Portal.

3.2.1.1.2 Register selected events according to the membership.

3.2.1.1.3 Either a sub-domain of the Public GP website or login through a “Portal Area” inside the Public GP website will used.

3.2.1.1.4 Landing page of the two Portals only consist:

3.2.1.1.4.1 LOGIN – for sign in existing member

3.2.1.1.4.2 JOIN - linked to register for new member and fields to fill in for Admin User approval

3.2.1.1.5 User will receive notification email after (1) submission of application and (2) application being approved approval.

3.2.1.1.6 Login page should have forgot password mechanism. In case of users forgets the password/wish to reset, a link should be sent to user’s registered email address or by sending One-time password (OTP) on registered mobile to reset password.

3.2.1.1.7 Render the Portal applications/modules and ensure the correct view is

displayed once logged In. When a Registered member access the KH through the Portal, then they must only see their specific Profile information. The Portal needs to automatically render the display that is applicable based on the member logging In.

3.2.1.1.8 After successfully login, a dedicated Member area should be designed for Product Supplier and NGO with functions including:

- 3.2.1.1.8.1 Membership renewal
- 3.2.1.1.8.2 Subscription system for difference level of Member with difference rights
- 3.2.1.1.8.3 Update of contact person information and company profile (upload function for image and document supported)
- 3.2.1.1.8.4 Change password / forget password
- 3.2.1.1.8.5 Members' page (Members could directly access information like news and updates for members, benefits and entitlements record, event registration etc.)

3.2.1.1.9 The system should allow members to change their password and notify them in email.

3.2.1.1.10 The system should allow a member (without logging in to the system) to submit a request on password recovery and send the user an email for him/her to update the password.

3.2.1.2 Portal – Front end - Knowledge Items Management

3.2.1.2.1 Based on the membership status/level, registered Portal Users can access and submit different Knowledge Items including but not limited to the following types of resource:

- 3.2.1.2.1.1 Product specification/ service detail
- 3.2.1.2.1.2 Study report
- 3.2.1.2.1.3 Research papers
- 3.2.1.2.1.4 Industry news
- 3.2.1.2.1.5 Wish-list from NGO (only for NGOs Portal)
- 3.2.1.2.1.6 Satisfactory survey after receiving services

3.2.1.2.2 The Portal's page header shall host the link to the following pages (Knowledge item category):

3.2.1.2.2.1 Product specification/ service detail page

3.2.1.2.2.2 Study report page

3.2.1.2.2.3 Research papers page

3.2.1.2.2.4 Industry news page

3.2.1.2.2.5 Wish-list from NGO page (only for NGOs Portal)

3.2.1.2.2.6 People & Organization page

3.2.1.2.2.7 Events registration page (Event management module)

3.2.1.2.3 Selected Knowledge Items in the above pages can be downloaded or viewed according to the pre-defined right of the login Users.

3.2.1.2.4 System allows User to filter and sort by attribute/fields of each Knowledge item category when searching.

3.2.1.2.5 System allows Users with access rights to submit and upload the selected Knowledge Items to the above pages.

3.2.1.2.6 The formats of the Knowledge Items include pdf, video, audio, and image.

3.2.1.2.7 Submitted Knowledge items are required for approval from Admin User to publish in the Portals.

3.2.1.2.8 Acknowledge of receiving for submitted Knowledge items will be sent by the System once receiving.

3.2.1.2.9 A Notification of approval will be sent by System once having approval of publishing by Admin User.

3.2.1.2.10 Uniform Page Footer: The repeating footer element shall contain the links to the following pages but not limited to: Copyrights / Privacy policy / Legal notices/ Trademark information / Disclaimer information / Site map.

3.2.1.2.11 Social network page access: Facebook, LinkedIn, and other popular network sites

3.2.1.3 Portal – Front end - Event Management module

3.2.1.3.1 After login “Member Area”, members can register the event in the Event

page. (There are 5 types of events: Local study visit, Overseas study visit, Annual Summit, NGO visits, Seminars, Workshops)

- 3.2.1.3.2 Members will be able to enter required information for the registration of the events. Subsequently register for any further events User wish to attend without being required to re-enter Username and password information.
- 3.2.1.3.3 The availability of the events for registration based on the permission from Admin User assign to the role or group of the member.
- 3.2.1.3.4 Member can browse event information in calendar format and register to participate in events.
- 3.2.1.3.5 Browse detailed information about events after clicking on selected event item.
- 3.2.1.3.6 Only available dates and timeslots will be shown. Alternatively, any unavailable services will be shown in grey, which are not selectable.
- 3.2.1.3.7 Dates and timeslot will be shown after checking availability automatically by system when pages loaded and after selecting and submitting.
- 3.2.1.3.8 System should able to set available number of participants of the events
- 3.2.1.3.9 After member fill in required information system will send notification email to member's registered email addresses for a successful event registration. For some events that not on first-come-first serve basis, please allow Admin User to "admit" registration. The notification emails should include: (1) registration received, (2) registration approved, (3) registration rejected
- 3.2.1.3.10 Barcode/QRcode/Registration number will be displayed at the end of the online registration process and sent through e-mails.
- 3.2.1.3.11 Members attend the event and show the QR code for taking attendance.
- 3.2.1.3.12 The above QR scanning or other solutions MUST work at non-Knowledge Hub office area.
- 3.2.1.3.13 After scanned the QR code, members attendance record will be updated (Duplicate record can be detected). Such record also be updated to members' profile.
- 3.2.1.3.14 If event is over quota, member will see a remark of "Full" next to the event.
- 3.2.1.3.15 Event Registrar can CANCEL the registration through the Portal after log- in

before the event begins (Business role will be set by the Admin User in the system). System will send an email notification to the Event Registrar as an acknowledgement.

3.2.1.3.16 Events time clash alert for attempting of registration.

### **3.2.2 Portal – Content Management System (CMS) for Admin User**

#### **3.2.2.1 Portal – CMS Members Management module**

3.2.2.1.1 Maintain member account information including but not limited to member name, member login, member contact information, the organization he / she belongs to, membership type with different access rights.

3.2.2.1.2 Types of Membership including: (names of the membership level to be confirmed)

3.2.2.1.2.1.1 Membership Level 1

3.2.2.1.2.1.2 Membership Level 2

3.2.2.1.2.1.3 Membership Level 3

3.2.2.1.2.1.4 Membership Level 4

3.2.2.1.3 The Admin User can add and remove Users from User roles. System should have different types of access rights that Admin Users can assign for User role for functions of “view”, “create” and “modify”

3.2.2.1.4 Can manage system settings, users, groups, and permissions.

3.2.2.1.5 Create, edit, view, search, sort, and deactivate member account(s).

3.2.2.1.6 Support mass registration through file upload

3.2.2.1.7 The create function should provide a clear form for Admin Users to create new member account(s), set member rights, and to allow Admin Users to send a system-generated notification email to the newly created member.

3.2.2.1.8 Can bulk export membership data inside database with filtering criteria as e- document format (e.g., CSV) AND bulk import data into database.

3.2.2.1.9 The deactivate function should have the capability to deactivate member account(s) so that the rights of the deactivated members be removed, and all related information is no longer available in the system and but still exists at

database level. Only Admin User has a right to perform permanent deletion of records at database level.

3.2.2.1.10 The system should provide a readable audit trail for create and change of member accounts in the system and should have the capability for Admin User to search and view the searching result.

3.2.2.1.11 Generate customized and send welcome letter and notification through member's dashboard and with email notification.

### 3.2.2.2 Provide Analytics and reporting

3.2.2.2.1 Predefined reports content required tracking and reporting refers to Appendix C.

### 3.2.2.3 Portal - CMS - Knowledge Items Management

3.2.2.3.1 Including the below Knowledge items but not limited to the followings:

3.2.2.3.1.1 Product specification/ service detail

3.2.2.3.1.2 Study report

3.2.2.3.1.3 Research papers

3.2.2.3.1.4 Industry news

3.2.2.3.1.5 Wish-list from NGO (only for NGOs Portal)

3.2.2.3.1.6 People & Organization

3.2.2.3.1.7 Satisfactory survey after receiving services

3.2.2.3.2 Knowledge items have the following attributes attached to them.

3.2.2.3.2.1 Date received.

3.2.2.3.2.2 Type

3.2.2.3.2.3 Status

3.2.2.3.2.4 Date to be completed

3.2.2.3.2.5 Date completed

3.2.2.3.2.6 Date status changed, and the name of the user who changed the status

3.2.2.3.2.7 Origin

- 3.2.2.3.2.8 User-definable reference such as account number.
- 3.2.2.3.3 Each Knowledge item is related to one member account as an identifier
  - 3.2.2.3.3.1 For each received record (items submitted by members through front-end portal), system will create a “submitted record” to group and consist of all related knowledge items.
  - 3.2.2.3.3.2 Authorized User can add additional items or delete existing items in the submitted record.
  - 3.2.2.3.3.3 All Knowledge items must be retrievable by the selection of one or more identifiers.
  - 3.2.2.3.3.4 Allow the linking of items with the same a “submitted case record” reference number.
- 3.2.2.3.4 Provide a “Knowledge items to be evaluated” Page/”in-tray” in user’s dashboard which list out all items by category.
  - 3.2.2.3.4.1 The feature of “in-tray (items to be evaluated)” facilities for individuals and groups to review incoming (submitted by members through front-end portal) Knowledge items and link items together where relevant.
  - 3.2.2.3.4.2 The in-tray facility must display all attributes to the user for processing.
  - 3.2.2.3.4.3 Sort Knowledge item in the in-tray by any attribute shown.
  - 3.2.2.3.4.4 The in-tray must feature options to list items in different ways, by attributes.
- 3.2.2.3.5 Additional information relating to a Knowledge Item should be added and stored in free format text annotations.
- 3.2.2.3.6 The Knowledge items’ attributes must include a history of status changes and an audit trail. The audit trail should also include:
  - 3.2.2.3.7 Date and time of all document movements
  - 3.2.2.3.8 Who accessed the document and when
  - 3.2.2.3.9 Date, time, and user details for all status, indexing and other changes.
  - 3.2.2.3.10 All business rules will be Predefined, confirmed and agreed before the system



development stage. No user-definable functionality is needed. Notification rules are shown as below.

- 3.2.2.3.11 System should be able to notify any other selected User group(s) or individual User for reviewing or requests for approval for the selected items.
- 3.2.2.3.12 Permit a user to mark items as pending or change to any status and move onto the next items.
- 3.2.2.3.13 Assign a status to documents automatically and manually.
- 3.2.2.3.14 Two level of the approval should be implemented.
- 3.2.2.3.15 System provides each Registered Portal member has his/her own profile with the knowledge items submission historical record. Records include status or stage of the approval of publishing.
- 3.2.2.3.16 System sends Registered Portal User a notification after submitting a document by Portal User.
- 3.2.2.3.17 Able to link documents outside the KH.
- 3.2.2.3.18 Provide search functionality for Users by displaying a search Interface.
  - 3.2.2.3.18.1 Search Capability - The system must have the ability to allow users to search the Knowledge items by keying in the relevant resource name and can perform various search functions by applying filters. The filters will use the fields that will be confirmed.
  - 3.2.2.3.18.2 Support efficient text-based search so that system should Allow users to search by content relevance or keywords.
  - 3.2.2.3.18.3 It should be possible to search by multiple references in one search.
  - 3.2.2.3.18.4 System displays a user's search results by the sorting ability according to latest publish date or items attribute/fields.
- 3.2.2.3.19 Each submitted Knowledge item has item attributes to be described in the record.
- 3.2.2.3.20 The system allows multiple documents, a single document to be viewed simultaneously by more than one user.
- 3.2.2.3.21 For the authorized members, able to download as pdf and print group of selected documents on demand.

3.2.2.3.22 The system must be capable of storing, retrieving, and playing video and audio files.

3.2.2.3.23 Users should be unaware of the physical storage location of Knowledge items and must be able to automatically identify the location of an archived image and retrieve it.

3.2.2.3.24 Reports must be available giving statistical information of Knowledge Items and submitted record processed and the number of items which are waiting to be processed.

3.2.2.3.24.1 Volume of Knowledge Items and submitted record being received and processed by item type per period.

3.2.2.3.24.2 Analysis of retrieval by members through the Portal

3.2.2.3.24.3 Total number of Knowledge Items between selected periods by type

3.2.2.3.24.4 Pending work In-trays

3.2.2.3.24.5 Weekly and monthly workflow statistics

3.2.2.3.24.6 All reports should be viewed on Portal and downloadable as Excel and pdf format.

#### 3.2.2.4 Portal - CMS - Event Management module

3.2.2.4.1 Create and manage events (Local study visit, Overseas study visit, Annual Summit, NGO visits, Seminars, Workshops)

3.2.2.4.2 approve the registrations of events.

3.2.2.4.3 Use configurable, event specific forms/template that will gather all necessary participant data for that events.

3.2.2.4.4 Approval path of the workflow will be provided, defined, and agreed before the system development. No configurable approval of workflows is required.

3.2.2.4.5 Grant access to these events to selected group(s) of members.

3.2.2.4.6 The system must allow customization of event titles, logos, descriptions, and additional information sections.

3.2.2.4.7 The system must allow the upload, approval, and distribution of event and session specific documents by authorized users.

3.2.2.4.8 The system must allow Event Registrars to set event-specific attributes for

Participants, including marking Participants as VIPs, indicating their affiliation, placing them in groups, or tagging them as speakers, moderators.

3.2.2.4.9 Admin user can scan the barcode/QRcode or input the registration numbers for attendance management on-site.

3.2.2.4.10 Create and update the site/pages, e.g., Scheduling, quota release.

3.2.2.4.11 Implement registration, manage available event registration quota of the Admin users have to supervision of the process.

3.2.2.4.12 Update member's profile and registration record

3.2.2.4.13 The system must allow Event Registrars to create, export and print lists of participants for each event (Excel export is essential), print badges, and generate reports and statistics about events and their participants.

3.2.2.4.14 Build with Attendance taking function which is a dedicated page:

3.2.2.4.14.1 An input field can capture data from Barcode/QRcode scanner or key in registration /booking number manually.

3.2.2.4.14.2 A prompt of "Attended" after checking record successfully.

3.2.2.4.14.3 A prompt of "no record found" if no registration record.

3.2.2.4.15 Allow to set register start date and time with end date and time.

3.2.2.4.16 Allow to set cancellation date and time before the event date.

### **3.3 Enquiry Case Management module with Referral mechanism**

#### **3.3.1 Enquiry Life Cycle**

3.3.1.1 It tracks all the activities related to the Enquiries handled by the system. Based on the internal workflow/procedures, All Enquiry will have the following stages throughout the Enquiry Life Cycle:

3.3.1.1.1 Receipt of Enquiry

3.3.1.1.2 Enquiry creation

3.3.1.1.3 Notification of Request for Review

3.3.1.1.4 Enquiry Allocation

3.3.1.1.5 Notification of Enquiry Review

3.3.1.1.6 Enquiry Follow up

3.3.1.1.7 Further support

3.3.1.1.8 One to One Consultancy for start-up

3.3.1.1.9 Levels of support cases

3.3.1.1.10 Case referral (multiple)

### 3.3.2 User(s) and User Groups

User Groups	Role	Organization	Responsibilities/ rights
ITA	Hub Admin	HKCSS	<ul style="list-style-type: none"><li>• Provide High level specialist advice and control</li><li>• Redirect and refer Enquiry Case management services</li><li>• Project Director: data entry and edit, user management, case referral &amp; approval</li><li>• Manager: data entry and edit, user account management, case referral &amp; approval</li><li>• Officer/ support staff: data entry and edit record</li></ul>
Partners	User	HKSTP HKPC	<ul style="list-style-type: none"><li>• Handling enquiries and cases</li><li>• Data entry, can only view and edit record created by their business unit</li></ul>
NGO	Member		<ul style="list-style-type: none"><li>• Basically, members have no responsibility at the case management system.</li><li>• Members will register at the Demand-side portal. ITA (hub admin) shall review the application detail, approve their application and assign membership level.</li></ul>
Supplier/Manufacturer	Member		<ul style="list-style-type: none"><li>• Basically, members have no responsibility at the case management system.</li><li>• Members will register at the Supply-side portal. ITA (hub admin) shall review the application</li></ul>

			detail, approve their application and assign membership level.
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### 3.3.3 User Account management

3.3.3.1 Create user accounts, groups, roles and restrict access to confidential information through authentication

3.3.4 Enquiry workflow paths and Handling Steps (please refer to **Appendix A & B** for the details)

3.3.4.1 Enquiry workflow describes the lifecycle of an Enquiry under the different workflow paths. Beginning with receipt of Enquiry to Partners' Intak, an Enquiry is progressed through various Handling Steps in the Workflow Paths of review and consultation services and arrangement.

3.3.4.2 There are six Workflow Paths (WFP). Enquiry will be passed across between Workflow Path along with the Handling Steps (HS).

	Acronym	Workflow Path (WFP)	Handling Step (HS) no. in Workflow
a	CM	HKCSS main	c1, c2, c3, c3a, c3b, c4, c5, c6, c7, c8
b	SIL	HKSTP Initial	s1, s2, s3, s4, s5, s6
c	SIT	HKSTP Intake	s7a, s7b, s7c, s7d, s8a, s8b, s8c, s8d, s9e, s10e, s11
d	PIL	HKPC Initial	p1, p2, p3, p4, p5, p6
e	PIT	HKPC Intake	p7.1, p7.2, p7.3, p7.4, p7.5, p7.6
f	ER	External Referral	e1, e2, e3

			(s9e & s10e from HKSTP)
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3.3.4.2.1 Please refer to **Appendix A** for the list of tasks between HKCSS main (CM), HKSTP Initial (SIL) and HKPC Initial (PIL)

3.3.4.2.2 Please refer to **Appendix A** for the list of tasks between HKSTP Intake (SIT) and External Referral (ER)

3.3.4.2.3 Please refer to **Appendix A** for the list of tasks between HKPC Initial (PIL) and HKPC Intake (PIT), External Referral (ER) and HKCSS main (CM)

### 3.3.4.3 Logic of KPI counting

3.3.4.3.1 Each Handling Steps must be completed (“checkpoint”) or confirmed by Authorized Users

3.3.4.3.2 The underlined Handling Steps are the “scored” step

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum KPI count	Ref. Enquiry cases workflow flowchart no. ( <b>Appendix B</b> )
---	Main workflow	---	---	no. 1
1A	When HKCSS received an enquiry from a start up via Hotline/Knowledge Hub			
	c1 - c2 - c3 - <u>c3a</u>	+1	1	no. 2
1B	HKCSS makes referral to HKSTP after reviewing the enquiry nature, HKSTP receives the case for follow up			
	c1 - c2 - c3 - <u>c3a</u> - c4 - c5 - s5 - <u>s6</u>	+1 + 1	2	no. 3
1C	HKSTP provides support services depending on the enquirer’s need			
	c1 - c2 - c3 - <u>c3a</u> - c4 - c5 - s5 - s6 - <u>s7a/b/c/d</u>	+1 +1 +1 +...	3+	no. 4
	When HKSTP receives an enquiry on Gerontech Platform from their network			

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum KPI count	Ref. Enquiry cases workflow flowchart no. (Appendix B)
---	Main workflow	---	---	no. 1
1A	When HKCSS received an enquiry from a start up via Hotline/Knowledge Hub			
	c1 - c2 - c3 - c3a	+1	1	no. 2
2Ai	s1	+1	1	no. 5
2Aii	Support services will be provided and recorded at GP computer system if the support service required fall into HKSTP's scope			
	s1 - s2 - s3 - s4 - s5 - s6 - s7 s7a/b/c/d	+1 +1 +...	2+	no. 6
2Bi	Enquirer will be referred to HKCSS if the support service required out of HKSTP's scope			
	s1 - s2 - s3 - s4 - c3a - c4 - c5	+1 +1	2	no. 7
2Bii	HKCSS refers enquirer to HKPC for further support			
	s1 - s2 - s3 - s4 - c3a - c4 - c5 - p5 - p7.1/2/3/4/5/6	+1 +1 +1 +1 + ...	4+	no. 8
2C	HKCSS refers enquirer to related organization for further support			
	s1 - s2 - s3 - s4 - c3a - c4 - c5 - e2	+1 +1	2	no. 9
3	When HKCSS receives an enquiry from a product developer via Hotline/Knowledge Hub and refers to HKPC for further support			
	c1 - c2 - c3 - c3a - c4 - c5 - p5 - p6 - p7.1/2/3/4/5/6	+1 +1 +1 +...	3	no. 10
4A	When HKPC receives an enquiry on Gerontech Platform and provides support service within their scope			
	p1 - p2 - p3 - c3a - p4 - p5 - p6 - p7.1/2/3/4/5/6	+1 +1 + ...	2+	no. 11
4B	When HKPC receives an enquiry on Gerontech Platform from their network and refers to HKCSS/HKSTP			
	p1 - p2 - c3a - c4 - p4 - c5 - s5 - s6 - s7a/b/c/d	+1 +1 +1 +1 +...	4+	no. 12
5A	When HKCSS receives an enquiry refer out to other related organizations for non-GP service			
	c1 - c2 - c3 - c3b	+1	1	no. 13
5B	When HKSTP/HKPC receives an enquiry refer out to other related organizations for non-GP service			
	s1 - s2 - e1 or p1 - p2 - e1	+1	1	no. 14

#### 3.3.4.4 General Functional Requirements for ECMS in Notification and Escalation

3.3.4.4.1 The system will enable configurable deadlines and notification intervals for a Task.

3.3.4.4.2 Business rules are incorporated into the system during the system

development. It is not adjustable by Users. Business rules include duration of each step should be able to set by day. If an alert should be displayed in the dashboard of the current Step handler, previous Step Handler and/or supervisor if Enquiry has not been passed forward within the pre-defined duration

3.3.4.4.3 The system will maintain the integrity of existing Task notification settings when configuration changes are made.

3.3.4.4.4 The system will enable configuration for an escalation notice on a lapsed Task deadline.

3.3.4.4.5 The system will allow privileged Roles to enable or disable notifications.

3.3.4.4.6 The system will track and indicate notifications for each system user.

3.3.4.4.7 The system shall enable notification messages sent via email as a backup, when configurable events/business rule are triggered.

3.3.4.4.8 The system will track the data modification by each system user.

#### 3.3.4.5 Case Information Retrieval: Reviews, Searches and Queries

3.3.4.5.1 The System shall enable compound search queries including the following attributes:

3.3.4.5.1.1 Keyword

3.3.4.5.1.2 Business unit or position or name

3.3.4.5.1.3 Reference number (e.g., Enquiry number)

3.3.4.5.1.4 Geographical/Location/Organization

3.3.4.5.1.5 Enquiry lifecycle

3.3.4.5.1.6 Tasks/Workflow/Steps/Status

3.3.4.5.1.7 Enquiry content and relationships

3.3.4.5.2 The system shall also support:

3.3.4.5.2.1 Full-text searches

3.3.4.5.2.2 Use of Boolean operators (and or not) to refine searches

3.3.4.5.2.3 “wildcard” or truncated searches (e.g., \* and?) at start, end, or middle of words



3.3.4.5.2.4 Searching for named time intervals, e.g., “last week”, “this month”, as well as specific date ranges.

3.3.4.5.2.5 Allow the user to narrow their search by searching within search results

3.3.4.5.3 The System must preserve security and access control restrictions in all information retrieval scenarios.

3.3.4.5.4 System Authorized users shall be able to configure and export the presentation of search results.

3.3.4.5.5 Any combination of Search results to be made available by way of hard copy report (Electronic PDF acceptable) with the Username, date and time embedded on such report.

#### 3.3.4.6 Reporting

3.3.4.6.1 The System will able to generate pre-defined reports. Access to pre-defined reports is authorized by configured Role.

3.3.4.6.2 The System will utilize Microsoft Word, excel and pdf to generate documents.

#### 3.3.4.7 Entity Management

3.3.4.7.1 The Solution will allow a User to Create and Amend an Entity via Role privilege.

3.3.4.7.2 An Entity is a person, a group, or an organization to an Enquiry.

3.3.4.7.3 The Solution will allow an Entity to be referenced from any number of Case(s).

3.3.4.7.4 The system will allow an Enquiry to be assigned to default or pre-assigned handler along the workflow.

3.3.4.7.5 The system will enable an Enquiry to reference another Enquiry

3.3.4.7.6 The Solution must maintain the integrity of entity information when a case is closed.

#### 3.3.4.8 Tasks and Enquiry

3.3.4.8.1 The Solution will enforce a Task and Enquiry relationship constraint. This means that a task can only exist if it is associated and linked to an Enquiry.

## 4 System Requirements

### 4.1 Admin Console

4.1.1 A single Admin Console is required to connect, control and manage all modules, CMS, back-end.

4.1.2 Admin Console User should be able to desire data collected from modules and front end, back end and CMS

### 4.2 Multiple dimension of access control (Function level and file level)

4.3 The language of the User interface of website, portals will be in English, Traditional Chinese and Simplified Chinese.

4.4 The language of the User interface of CMS, back end and Admin Console should be in English, Traditional Chinese

4.5 The system must include an image library

### 4.6 Reporting

#### 4.6.1 Content of the reports

4.6.1.1 Includes those reports listed on **Appendix C** and required in each module, for website and portals

4.6.1.2 There are 20 templates which should be able to export as excel format

4.6.1.3 Built in print-out ready version capability.

4.6.1.4 Detail breakdown reports have to be provided for EACH of the statistical figures in the reports.

4.6.1.5 A snapshot of the raw data has to be taken for EACH time of report generation for cross checking in the future.

4.6.1.6 Support Monthly, Quarterly, Yearly and a certain Period specified by the users.

#### 4.6.2 Reporting/ Enquiry Tool and functions:

4.6.2.1 Provide report tool for users to build own ad-hoc reports or add new selection criteria to generate ad-hoc reports or conduct data analysis by users

4.6.2.2 Enquiry function has to be provided for the users to search and select the data in

all module and input into the reports.

4.6.2.3 Users can input multiple filtering criteria for report generation and enquiry function.

Filtering criteria include but not limited to:

4.6.2.3.1 Date/ Time range

4.6.2.3.2 Wild card

4.6.2.3.3 Keyword search

4.6.2.3.4 Number range

4.6.2.3.5 Multiple selection of category (i.e. checkboxes)

4.6.2.4 Users can select the data fields (i.e. columns) they need the report/ enquiry output to include, when generating report/ running an enquiry.

4.7 The systems proposed by the supplier must comply with the following system requirements:

4.7.1 Web-based system is required

4.7.2 CMS and back end User interface mainly in English and Chinese, supporting multi-language has advantages, but the input data and reports must support Unicode, i.e., English, Traditional Chinese and Simplified Chinese. User can change the UI language any time is preferable.

4.7.3 Support Client-Side OS Platform: MS Windows 7 and above (32-bit and 64-bit), and latest versions of MS Windows; Apple Mac OS

4.7.4 Support Client-Side Web Browser: Microsoft Edge, Internet Explorer (IE), Google Chrome and Safari.

4.8 Maximum five iterations of website design shall be allowed. Web design including user interface (UI) and user experience (UX) should be handled by the Suppliers with art direction (limited to logo, working file of key visual and colour palette only) provided by HKCSS - ITA.

General requirement as described as following:

4.8.1 Public Website Front-end (highly involving visual/graphic design)

4.8.2 Supplier and NGO Portal Front-end (following the same look and feel with limited visual/graphic design)

- 4.8.3 Portal for Admin User (focus on functionality and convenience)
- 4.8.4 Usage of the stock photos
- 4.8.5 Suppliers are responsible for all stock photo/images without any charge to HKCSS – ITA. And Suppliers shall provide necessary stock photos for HKCSS – ITA to consider until final approval of the design.
- 4.8.6 Create SEO-Friendly URLs
- 4.8.7 Support site traffic measurement and analysis (e.g., installation of Google Analytics)

## **5 System Security**

### **5.1 The proposed system shall support IPSec VPN features.**

- 5.1.1 The scope of work covers supply, installation, and maintenance of HKCSS office and any other office of the connection as per their requirement along with creation of VPN solution. The suppliers shall also provide the necessary drawings and plan for implementation of connectivity of all the locations specified herein.
- 5.1.2 Suppliers are required to design, implement the capable of carrying data and shall provide connectivity to through secure VPN tunnel via internet.
- 5.1.3 VPN Gateway shall be implemented to cater the requirement of VPN access from different partners' offices or locations. VPN access shall be given on the basis of access rule defined with Access Privilege Management

### **5.2 The system has to be protected by Web Application Firewall (WAF)**

- 5.2.1 The WAF solution is in subscription-based.
- 5.2.2 Reputable WAF, such as CloudFlare, has to be proposed.
- 5.2.3 The Supplier has to configure the WAF to protect the System.

### **5.3 Security Risk Assessment and Audit (SRAA)**

- 5.3.1 Security Risk Assessment and Audit (SRAA) has to be conducted by a third-party company. Suppliers must rectify the discrepancies / observations in the system as per the scope of work and to resolve all identified risk items. The results of compliance check must be positive and identified risks have been cleared. All high risk items found in pre-scanning must be fixed. Reports of SRAA should be submitted to HKCSS. There shall not be any

additional charges payable by HKCSS for such rectifications

5.3.2 SRAA should be conducted 3 times of pre-scanning and 2 times of post-scanning in total:

5.3.2.1 1 time of pre-scanning before each phase system launch. 3 phases in total

5.3.2.2 1 time of post-scanning after risk fixing in both Phase 2 and Phase 3.

5.3.2.3 After conducting the SRAA (pre-scanning), suppliers resolve all identified risk items.

5.3.2.4 After conducting the SRAA (post-scanning) suppliers should provide supporting document to prove the risk items have been resolved.

5.3.2.5 SRAA items should be defined and subjected to HKCSS – ITA’s final requirement and approval.

## 6 Cloud Infrastructure and Software

The new system planned to adopt cloud solution. A new Cloud account under the name of The Hong Kong Council of Social Service (HKCSS) should be set up specific for this project. The location of the data center should be in Hong Kong. In conceptualization stage, the minimum requirements were stated for your reference. **Suppliers should propose setting and configuration based on the understanding of the requirements and the budget planning as below:**

6.1 Totally 4 servers are planned to be used in the following environments:

2 servers for Production: 1 for Application and 1 for Database servers

2 servers for Development/ Training/ User Acceptance Test: 1 for Application and 1 for Database servers

6.2 The budget planning cloud service cost based on proposed infrastructure, functions, and activities. should be proposed by Suppliers

6.3 Suppliers would need to make a fair assessment of those requirements described above to ensure that the proposed solution/system is compatible and with sufficient capacity. If it is required, suppliers would counter propose.

6.4 Suppliers should propose the Infrastructure Managing Service (for cloud administration, data backup monitoring, disaster recovery drill, system recovery, DNS server hosting, SSL

installation, Web Application Firewall setup, antivirus for cloud servers in the cloud environment.

Suppliers would need to make a fair assessment on those planned hardware and software configuration described to ensure that the proposed solution/software product is compatible and with sufficient capacity.

Besides, Suppliers would also need to ensure that such hardware/software configuration supports proper data backup (even for hot backup, offshore backup) and security control.

Suppliers are required to quote rates for purchase of software license (if any) subscription separately for each of the year after the completion of warranty period

Suppliers should state clearly if system source code will be provided. Cost, and type of source code should be quoted and stated.

For any additionally proposed hardware or software components, the Suppliers shall state all the required costs of implementing them as “Optional Items” under “Quotation Breakdown”.

Suppliers should counter-propose the hardware/software configuration required if they find that there is deficiency.

As the server infrastructure may not be ready at the initial stage of this project, the awarded Supplier would need to provide a development environment temporarily for the use of gap analysis, system development and testing during the implementation period.

## 7 Scale of Initial Setup

Estimation Type and number of users

Module	No. of users (by user login account)	User Type/Organization	Connection
Public Website Front end	>8000	Public	Web
<i>In conceptualization stage, HKCSS estimates that the upper limit would be 2,000 concurrent access to the public website.</i>			
Public Website CMS	30	HKCSS	VPN
Product Supplier Portal and NGO Portal Front end	1500	Suppliers & NGOs	
Product Supplier Portal and NGO Portal	10	HKCSS	

back end			
Enquiry Case Management module with Referral mechanism	20	HKCSS, HKSTP, HKPC	VPN
Admin console to control and manage all integrated modules & Back end	10	HKCSS	VPN

For the purpose of system network design and estimation:

	Address of the partners' offices (HKSTP & HKPC)	Broadband Speed (upload/download)	Concurrent Users	System Users
1	Hong Kong Productivity Council, 78 Tat Chee Ave, Kowloon Tong	Upload: 600MB/s Download: 600MB/s	5	5
2	Hong Kong Science Park, Shatin, NT., Hong Kong	Upload (local): 1GB/sec Download (local): 1GB/sec Upload (overseas): 50MB/sec Download (overseas): 50MB/sec	5	5
	Total:		10	10

## 8 Supplier's Capacity and Capability

- 8.1 Suppliers should demonstrate a history of similar project successes and be able to provide the resources for the full project life cycle, requirements gathering and analysis, system analysis and design, development, integration and testing, implementation, and handover through to nursing period.
- 8.2 All proposed information should be specifically to address the requirements and apply to the conditions of this project. Proposals provided by Suppliers hereunder will be binding on the Tenderers after award of the Contract but subject to such further changes as the HKCSS considers appropriate. Failure to submit the information specified hereunder will result in the tender not being considered further

## 9 Schedules – Technical

### 9.1 Compliance

(\* Please tick the appropriate.)

☐ I/We confirm that our proposal comply fully with the required specifications of this Attachment.

☐ I/We confirm that our proposal does not comply fully with the required specifications of this Attachment, in the following aspects:

Please include a detailed explanation of features/functions you can offer. Please also provide details on additional features or functions, exclusive of specified needs that may be requested, that may provide a distinct value to the company.

### 9.2 Reporting

(\* Please tick the appropriate.)

☐ I/We confirm that our proposed solution is equipped with a reporting tool or a business intelligence tool.

☐ I/We confirm that our proposed solution is NOT equipped with any reporting tool nor any business intelligence tool.

Please include a detailed explanation of features/functions you can offer.

### 9.3

#### 9.3.1 Cloud infrastructure

Suppliers shall be responsible for provisioning required compute infrastructure (server/virtual machines), storage for hosting required applications. Proposal should be provided on the cloud infrastructure for efficient and effective delivery of services as contemplated under this tender document includes built-in high availability of the cloud management infrastructure. The



physical location of the data center should be in Hong Kong.

### **9.3.2 Risk Management**

Suppliers are required to submit the followings and state your proposed approach for risk management including but not limited to the following aspects. The evaluation will be conducted accordingly.

1. Contingency plan:

The contingency plan shall include the following information

- (a) the arrangement for emergency situations such as suspension/interruption of system operation.
- (b) the availability of additional resources during contingency or emergency situations, the level of support and resources available at times of emergency.

2. Disaster recovery plan:

3. Transaction Data Backup:

4. System Backup:

5. Resilience:
6. Security:
7. Personal Data Handling: (Please describe the experience in handling data exposure and leakage incidents if applicable)
8. Other risk factors:
9. Stress Test and Drill Test Plan:

#### **9.4 Data Migration approach with plan and Database structure**

Please describe your proposed data migration in two levels:

- i. current Implementation: data in excel files and
- ii. Scalability: data from other systems (please make an assumption)

Please describe your Database structure design

## 9.5 Documentation and Deliverables

Please state if the following documentation/deliverables will be provided:

Documentation/ Deliverables	Comply (Yes/ No)
Project Initiation Document	
System Requirement Specification/Gap Analysis Report	
Architecture Design	
Functional Specification	
Technical Specification	
API/Interface Specification	
System Configuration Specification	
Development Environment Specification	
User Acceptance Test Plan with test cases	
User Manual	
Application Operation Manual	
Backup Plan	
Disaster Recovery Plan & Procedures	
Disaster Recovery Drill	
User Training	
System Nursing	
System/Application source code and/or tailor/customized source code	

Please state the documentation/deliverables other than those listed above

## **9.6 Project Management Methodology**

Please describe the project management methodology which will be adopted and state how it will affect the project management of this project.

## **9.7 Project Schedule**

It is a requirement that the Project (from Project Commencement to System Nursing) is to be completed within 10 months.

The entire system would be deployed in three phases. The month of signing the tender awarded document by both HKCSS and the supplier will be described as Month 0. The tender project duration should be finished on or before Month 10.

For Phase 1, it should be completed before Month 2

For Phase 2, it should be completed before Month 6

For Phase 3, it should be completed before Month 10

### Modules in Phase 1

Only Public Website with Content Management System (CMS)

### Modules in Phase 2

Supplier and NGOs Portal

Members Management module

Knowledge Items module

### Modules in Phase 3

Event Management module

System completion with roll out of Enquiry Case Management module with Referral mechanism

Please provide the project schedule by Month Number, e.g. Month 1 is the 1st month since the formal project commencement.

#	Major task/ milestone	From (Month No.)	To (Month No.)
1.	Project Initiation		
2.	Gap Analysis/User Requirement Collection/SRS signoff		
3.	Solution Design/SDD signoff		
4.	Phase 1		
4.1.	System Installation/ Customization/ Solution Development		
4.2.	System Test/ System Integration Test		
4.3.	User Acceptance Test/ UAT signoff		
4.4.	Data Migration		
4.5.	User Training		
4.6.	Trail/ Pilot Run/ Review		
5.	Phase 2		
5.1.	System Installation/ Customization/ Solution Development		
5.2.	System Test/ System Integration Test		
5.3.	User Acceptance Test/ UAT signoff		
5.4.	Data Migration		
5.5.	User Training		
5.6.	Trail/ Pilot Run/ Review		
6.	Phase 3		
6.1.	System Installation/ Customization/ Solution Development		
6.2.	System Test/ System Integration Test		

6.3.	User Acceptance Test/ UAT signoff		
6.4.	Data Migration		
6.5.	User Training		
6.6.	Trail/ Pilot Run/ Review		
7.	System Live Run/Project Completion		
8.	System Nursing		

### 9.8 Payment Schedule

Payment will be made upon the acceptance of the whole Project/all required deliverables in each milestone. Supplier must follow the payment schedule described below:

Milestone	Percentage of Contract Sum
Initial Payment (completion of Project Initiation Document)	20
Upon Solution Design/ SDD signoff	10
User Acceptance Test signoff for Phase 1	10
System Live Run for Phase 1	10
User Acceptance Test signoff for Phase 2	10
System Live Run for Phase 2	10
User Acceptance Test signoff for Phase 3	10
System Live Run for Phase 3	10
Project Completion	10

### 9.9 System Support and Maintenance

Suppliers are to make proposals regarding long-term system support and system maintenance. It is an optional item as stated in the 10.1 Quotation Breakdown. Although such services are to be handled separately from this Tender, the offers would be marked and counted during the evaluation of this Tender. HKCSS reserves the rights to subscribe to the service in this connection with the terms and conditions as described by the Suppliers after the implementation finished and project closed. Please describe the scope of services and service level for the system support and maintenance in the following aspects:

#### A. System Support and Maintenance

##### 1. Helpdesk services:

(Service hours, Response time of calls should be specified.)

##### 2. Bug-fixing:

3. Free version upgrade and installation of bug-fixing patches, and the corresponding documentation:
4. Refreshment courses on how to use the System:
5. Offers regarding out-scope services:
6. On-site support services:

B. Infrastructure Managing Service

Please describe the scope of services and service level for the system support and maintenance in the following aspects but not limited to the items for Cloud administration, data backup monitoring, disaster recovery drill, system recovery, DNS server hosting, SSL installation)



In addition, the following information shall be proposed by the supplier with his own judgment and assumption made based on the requirements of this tender.

	Aspect	Detailed Descriptions
i	Name of Public Cloud Operator	
ii	Address of the data centre	
iii	Hosting Plan	
iv	Specification of the Public Cloud Services – VM as servers: the number of CPU core and memory in GB per VM	
v	Specifications of the Public Cloud Services providing storage or backup or replication service: Number of GB per unit of the proposed Item of Cloud Service	
vi	Hosting Plan	
vii	Functions to be fulfilled by the proposed Item (please identify the applicable description as specified in the	

#### 9.10 Free Warranty Period

The free warranty period starts counting after the completion of the project, i.e., end of system nursing for 12 calendar months

#### 9.11 Reference Projects

Please list your reference projects in the table below and provide supplementary details if relevant.

#	System/ Project Name	Client	Supplementary
1.			
2.			
3.			

4.			
5.			
6.			
7.			
8.			
9.			
10.			

#### 9.12 Company Profile & Resume of Major Project Team Members

Please supply the resumes of the major project team members, including but not limited to the Project Director and Project Manager.

#### 9.13 Validity of Offer

The valid period of the Proposal is start counting after Tender Closing date for \_\_\_\_\_calendar days (not less than 90 calendar days).

### 10 Schedules – Price

#### 10.1 Quotation Breakdown

	Item	Unit of Measure	Quantity	Unit Price	Total Price
1.	Software License				
1.1	Proprietary Software				
1.2	Database (if applicable)				
1.3	others (if applicable)				
2.	Security Risk Assessment &				

	Item	Unit of Measure	Quantity	Unit Price	Total Price
	Audit (SRAA)				
3.	Professional Services				
3.1.	Project Manager				
3.2.	System Analyst				
3.3.	Programmer or equivalent				
3.4.	UI Designer or equivalent				
4.	Cloud Solution				
4.1.	Setup of servers				
4.2.	Server Charges (for Application and Database)				
4.3.	Storage for data backup				
4.4.	Managing services (include installation, administration, data backup monitoring, disaster recovery drill, system recovery, DNS server hosting, SSL installation)				
4.5.	Others				
	<b>Total:</b>				
	<b>Optional Items:</b>				
1.	Source Code				
2.	System Support and Maintenance:				
2.1	System Maintenance (refer to Section 9.10A below)				
2.2	Infrastructure Managing Service (refer to section 9.10B below) (for Cloud administration, data backup monitoring, disaster recovery drill, system recovery, DNS server hosting, SSL installation)				

	Item	Unit of Measure	Quantity	Unit Price	Total Price
3	Out of scope change request				
3.1	Workflow modification				
3.2	Each additional report				

Remarks:

- Unit of Measure can be one of the followings:
  - Per named user
  - Per concurrent user
  - Per server
  - Per processor
  - Per instance
  - Per man-day
  - Per report/ function/ module

## 10.2 Maintenance Fee:

	Item (after the 12-month free warranty provided by Supplier)	Unit of Measure	Quantity	Unit Price	Total Price
1.	Annual Maintenance Fee for 1 <sup>st</sup> year				
2.	Annual Maintenance Fee for 2 <sup>nd</sup> year				
3.	Annual Maintenance Fee for 3 <sup>rd</sup> year				
4.	Annual Maintenance Fee for 4 <sup>th</sup> year				
5.	Annual Maintenance Fee for 5 <sup>th</sup> year				

## Appendix A. Workflows

Here is the list of tasks between HKCSS main (CM), HKSTP Initial (SIL) and HKPC Initial (PIL). Please refer to blue dashed line rounded square in Enquiry cases workflow flowchart no.1 in **Appendix B** for the details.

	Enquiry Life Cycle	Required tasks	Handling Step	Workflow Type
a	Receipt of Pre-Enquiry	<p>Create record in an “Pre-Enquiry information page”</p> <p>Provide input page/form for user to fill in. Information including but not limited to the following. And Users should be able to add or delete any field without system modification.</p> <ul style="list-style-type: none"> <li>i. Contact of the enquirer (*allow user to search with member database to see if the enquirer has existing member account and retrieve the contact info)</li> <li>ii. Details of the enquiry</li> <li>iii. Details of follow-action</li> <li>iv. For admin: assigning users for follow-up</li> <li>v. For users: referring to admin/ accepting referral</li> </ul>	c1, c2, s1, p1	CM/SIL/PIL
b	KPI	Auto-generate the Pre-Enquiry Number in the format assigned by ITA.		
c	Receipt of Pre-Enquiry	<p>System will enable validation of entered information includes form and fields logic checking</p> <p>-For example, Date field checking, Compulsory field checking, Unique data checking</p>		
d	Receipt of Pre-Enquiry	When inputting a new Pre-Enquiry, if the enquirer has a Pre-Enquiry Record in the past according to a pre-defined field, e.g., phone number, the system should indicate that he/she is an “Ex-Enquirer” and provide an option for the users to transfer his/her particulars of last enquiry record from the old profile to reduce the works of re-inputting the data.		

e	Receipt of Pre-Enquiry	Users can save the inputted Pre-Enquiry record and pending for being reviewed by authorized Users		
f	Enquiry creation	Authorized Users can categorize or remark an Enquiry either as Gerontech (GT) related or Non-GT related	c3	
g	KPI	System Auto-generate the Enquiry Number in the format assigned by ITA	c3a & c3b	
h	Enquiry creation	An “Enquiry Record” page will be shown for User to fill in or remark  Support attachments uploading according to the corresponding Enquiry number and Case number		
i	Notification of Request for Review	For GT related Enquiry after being saved/confirmed, an alert will be displayed in the manager’s system dashboard for the Notification of Request for Review for the new Enquiry. An email notification will be sent concurrently only for the reminding purpose	c3a	
j	Notification of Request for Review	The ITA manager who will review the Enquiry can be either default or pre-assigned	c4	
k	Notification of Request for Review	For Non-GT related Enquiry, user records the action taken, organization referred. All inputted Pre-Enquiry information can be saved for review and reporting purpose	c3b	
l	Enquiry Allocation	After assigned ITA manager logging in to the system and clicking on his/her accessible dashboard, the filed Enquiry information will be displayed.		
m	Enquiry Allocation	The ITA manager can confirm to created Enquiry and categorize Enquiry by pre-defined Type and input other Enquiry information and remark/comment		
n	Enquiry Allocation	Enquiry can be circulated and assigned to either HKSTP, HKPC, other Partners or “Refer to related	c5 →	

#### Appendix A. Workflows

		organizations” All Enquiry record can be only reviewed by the authorized User in the Enquiry belonged Workflow path	s5 or p5 or others	
o	Enquiry Allocation	If Enquiry is being Referred to related organizations, a Referred page information is needed to fill in.	c5 → e2	
p	Enquiry Allocation	Enquiry information can only be reviewed by the assigned Partner and ITA		
q	Notification of Enquiry Review	Once ITA manager confirms, an alert will be displayed either Users of HKSTP or HKPC will see the alerts in the dashboard of the system about the assigned Enquiry information. The Notification of Request for Enquiry Review for the new Enquiry. An email notification will be sent concurrently only for the reminding purpose.  ITA manager receives a notification if HKSTP/ HKPC does not take any action input a follow up call log within day range (i.e., 3 working days) by Admin User/ITA manager	s5/p5	CIL/SIL/PIL
r	Enquiry Follow up	Information is added and modified in an Enquiry Record through its lifecycle by users with sufficient privileges. The system will enforce access control and information integrity through the Enquiry lifecycle.	c6, s6, p6	
s	Further support	If the allocated Enquiry will be passed back to HKCSS from Partners:  1. Further support page should be available for assigned Partners to input, confirm and pass back to HKCSS  2. HKCSS will be received an alert in dashboard  3 Follow by email reminder to pre-defined email address(es)	s6 → c7  or  p6 → c7	SIL → CM  or  PIL → CM

Here is the list of tasks between HKSTP Intake (SIT) and External Referral (ER)

Please refer to the Enquiry cases workflow flowchart no.1 in **Appendix B** for the details.

	Enquiry Life Cycle	Required tasks	Handling Step	Workflow Path
a	One to One Consultancy for start-up	Enquiry can be categorized including but not limited to: “NGO”, “Potential Start UP”, “HKSTP companies (STEP/Incubatee / Tenant)” and “Others”. Admin User should be able to add additional group without system modification	s7a, s7b, s7c, s7d	SIT
b	Consultancy for start-up	System provides a “One to one consultancy” Enquiry Report page for user to fill in consultancy information under all categories of Enquiry. Information including but not limited to:  Details of the consultancy service (date, duration, contact etc.), Comment or recommendation made, final referral services, etc.	s8a, s8b, s8c, s8d	
c	Consultancy for start-up	Under the “HKSTP companies (STEP/Incubatee / Tenant)” category, the information of the referred suitable service under GP is needed to fill in.	s7c → s8c	ER → SIT
d	Consultancy for start-up	System should allow user to choose “End of Service” at any consultation session.  System provides a “End of Service” page to record all related information		
e	Consultancy for start-up	All “End of Service” Support Case record should be available in CM	s11	



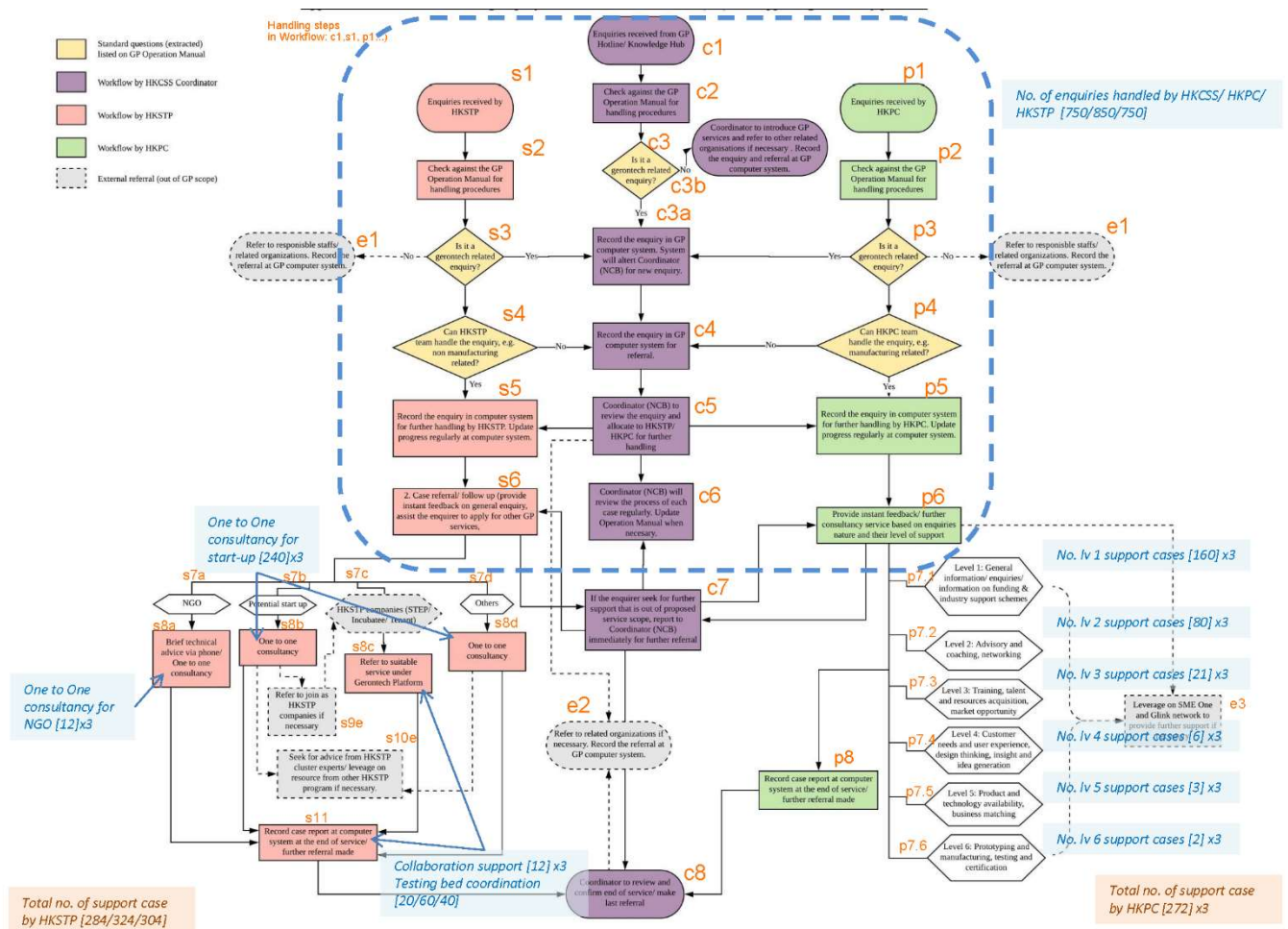
Here is the list of tasks between HKPC Initial (PIL) and HKPC Intake (PIT), External Referral (ER) and HKCSS main (CM)

Please refer to the Enquiry cases workflow flowchart no.1 in **Appendix B** for the details.

	Enquiry Life Cycle	Required tasks	Handling Step	Workflow Path
a	Enquiry Follow up	System will provide an option of “Leverage on SME One and Glink network to provide further support” but not being passed to PIT	p6 → e3	PIL → ER
b	Levels of Support cases	User can confirm the completion of Enquiry Follow-up stage in the Cycle. The Enquiry will be passed to PIT	p7.1 to p7.6	PIL → PIT
c	Levels of Support cases	Enquiry will be named as Support Cases and are able to be escalated from “Level 1”, “Level 2”, “Level 3”, “Level 4”, “Level 5” to “Level 6” or stop at any level.		PIT
d	Levels of Support cases	User can review all information at any previous level		
e	KPI	The quantity and the Service hours & minutes of support cases in each level is counted as KPI		
f	Levels of Support cases	System should provide each level an “PIT information page” and users are required to fill in related information including but not limited to: (Appendix A)		
g	KPI	System should allow user to choose “End of Service” at any level. System provides a “End of Service” page to record all related information	p7.1 to p7.6 → p8	PIT → CM
h	Levels of Support cases	All “End of Service” Support Case record should be available in CM	p8 → c8	

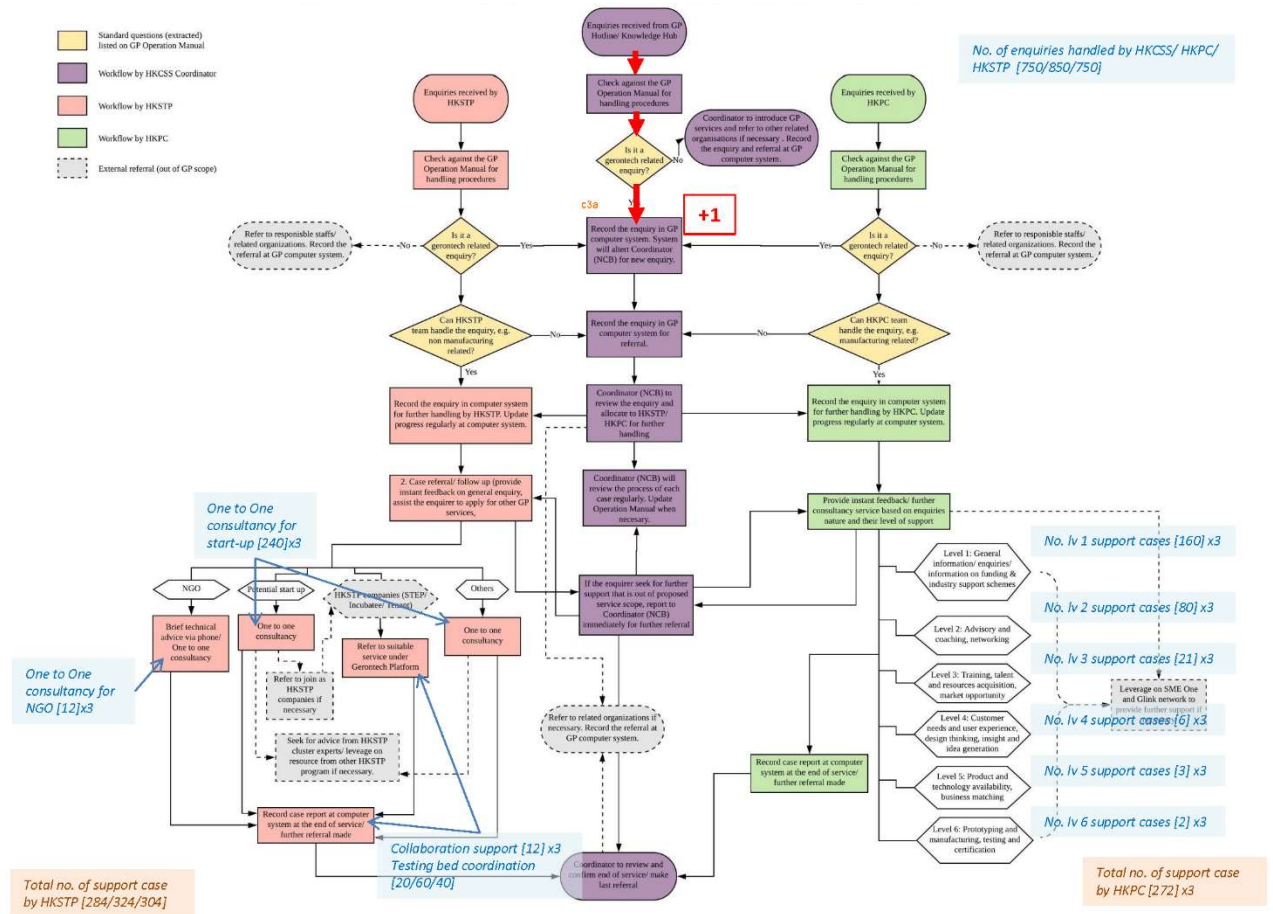
## Appendix B. Flowcharts

Enquiry cases workflow flowchart no.1. (Main workflow)



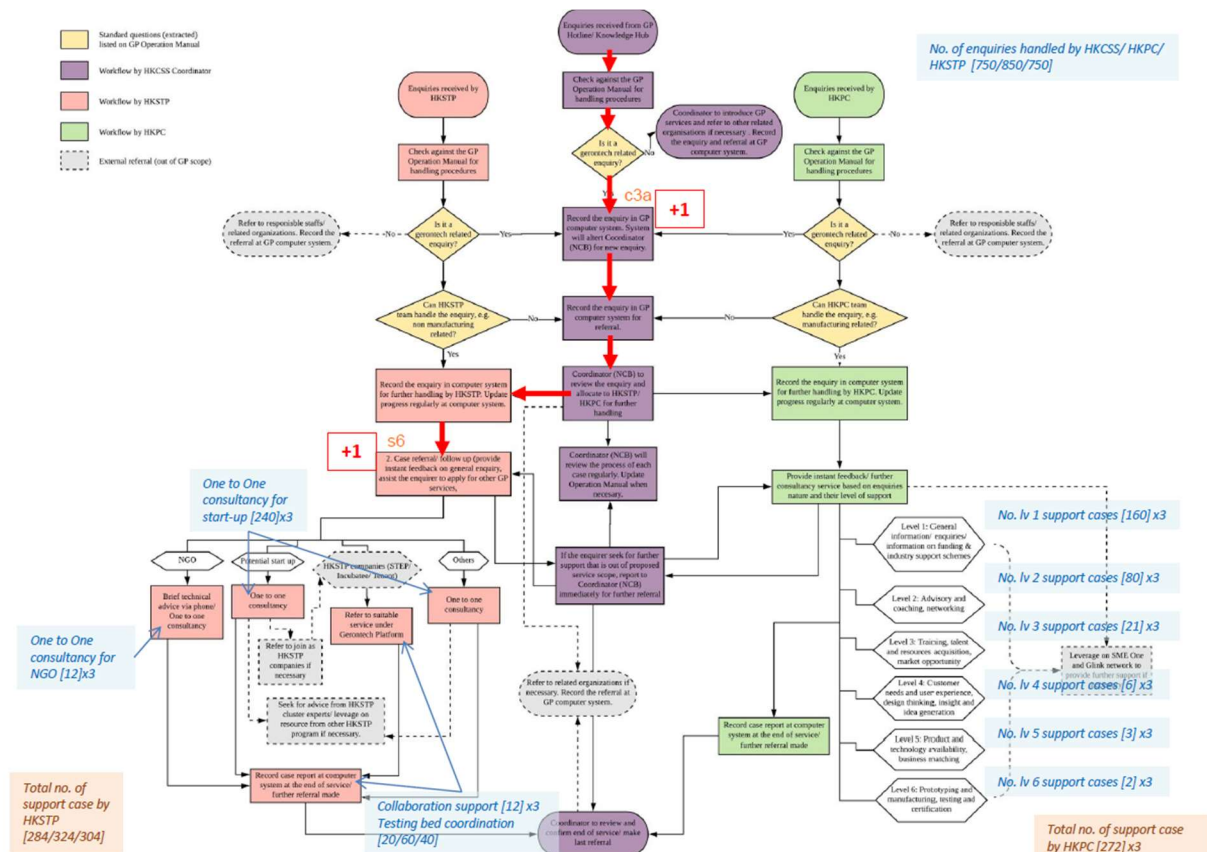
Enquiry cases workflow flowchart no.2

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
1A	When HKCSS received an enquiry from a start up via Hotline/Knowledge Hub		
	C1 - C2 - C3 - C3a	1	1



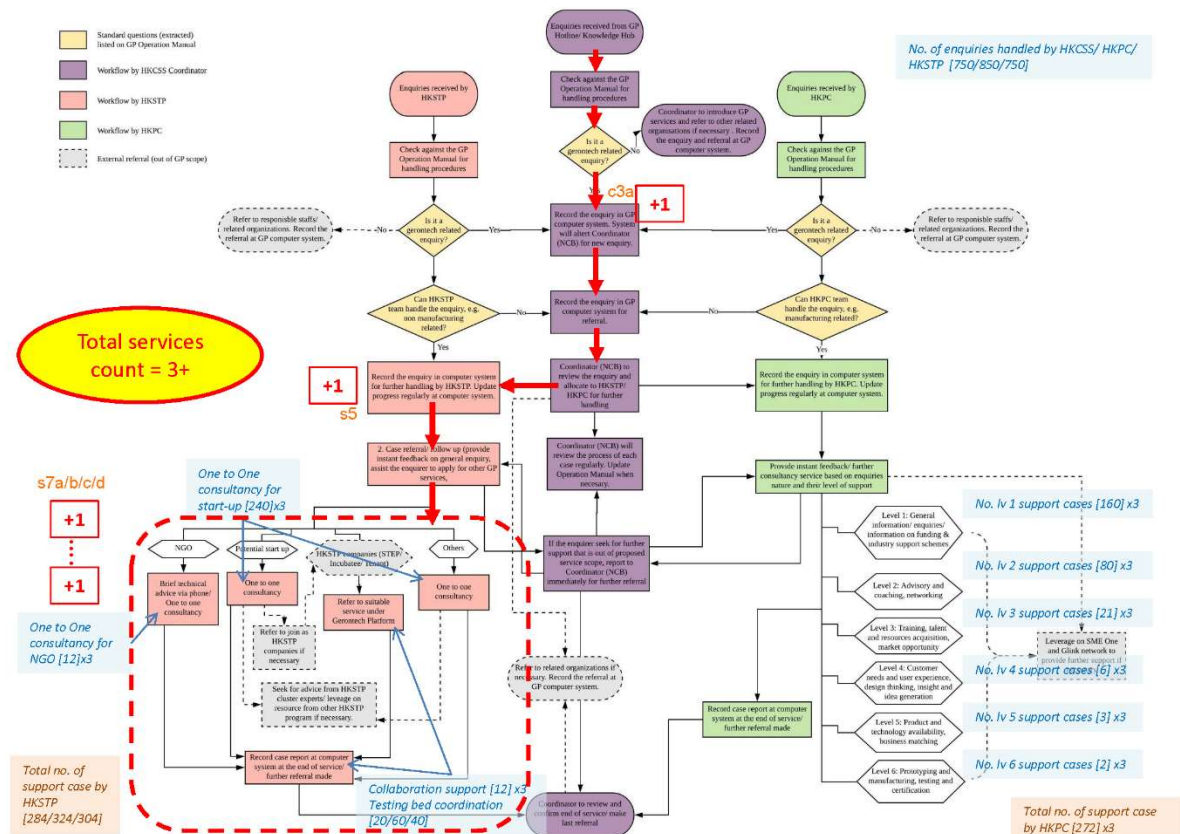
Enquiry cases workflow flowchart no.3

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
1B	HKCSS makes referral to HKSTP after reviewing the enquiry nature, HKSTP receives the case for follow up		
	c1 – c2 – c3 – c3a – c4 – c5 – s5 – s6	2	2



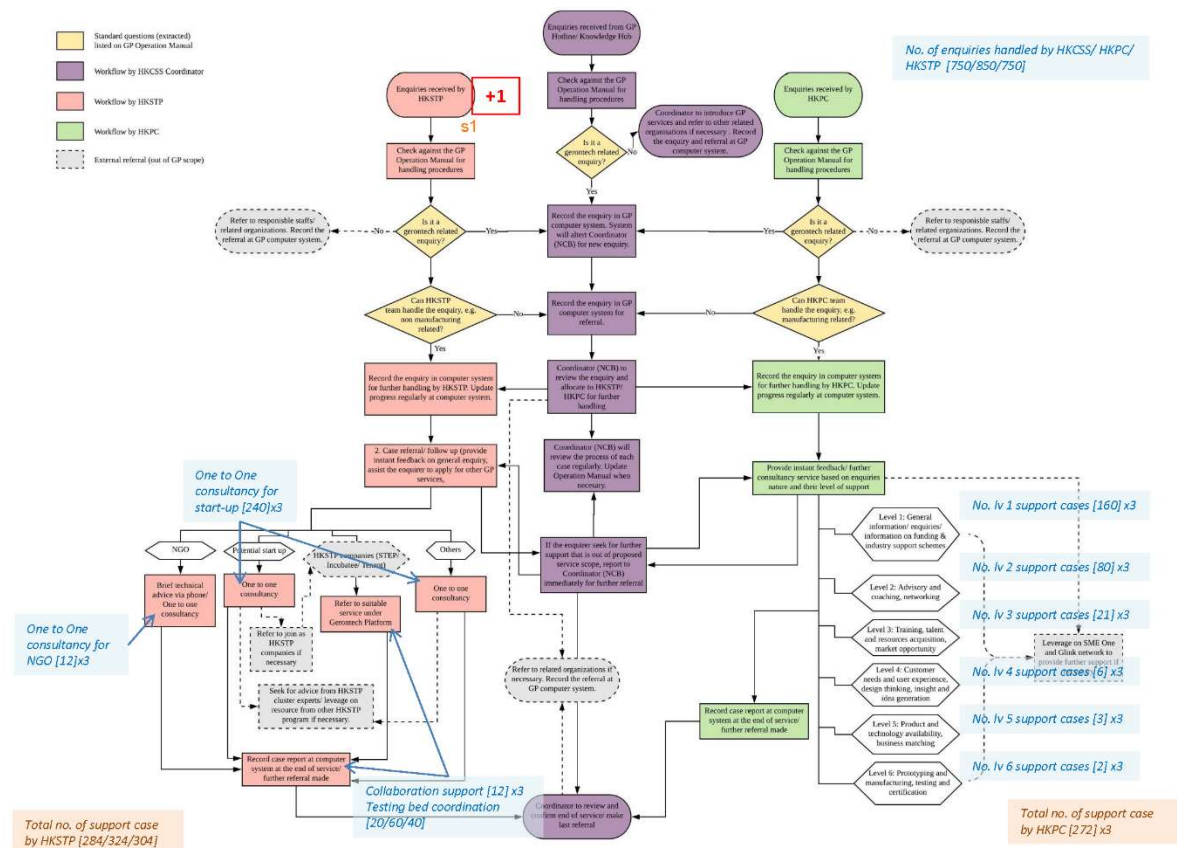
Enquiry cases workflow flowchart no.4

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
1C	HKSTP provides support services depending on the enquirer's need		
	c1 - c2 - c3 - c3a - c4 - c5 - s5 - s6 - s7a/b/c/d	+1 +1 +1 +...	3+



### Enquiry cases workflow flowchart no.5

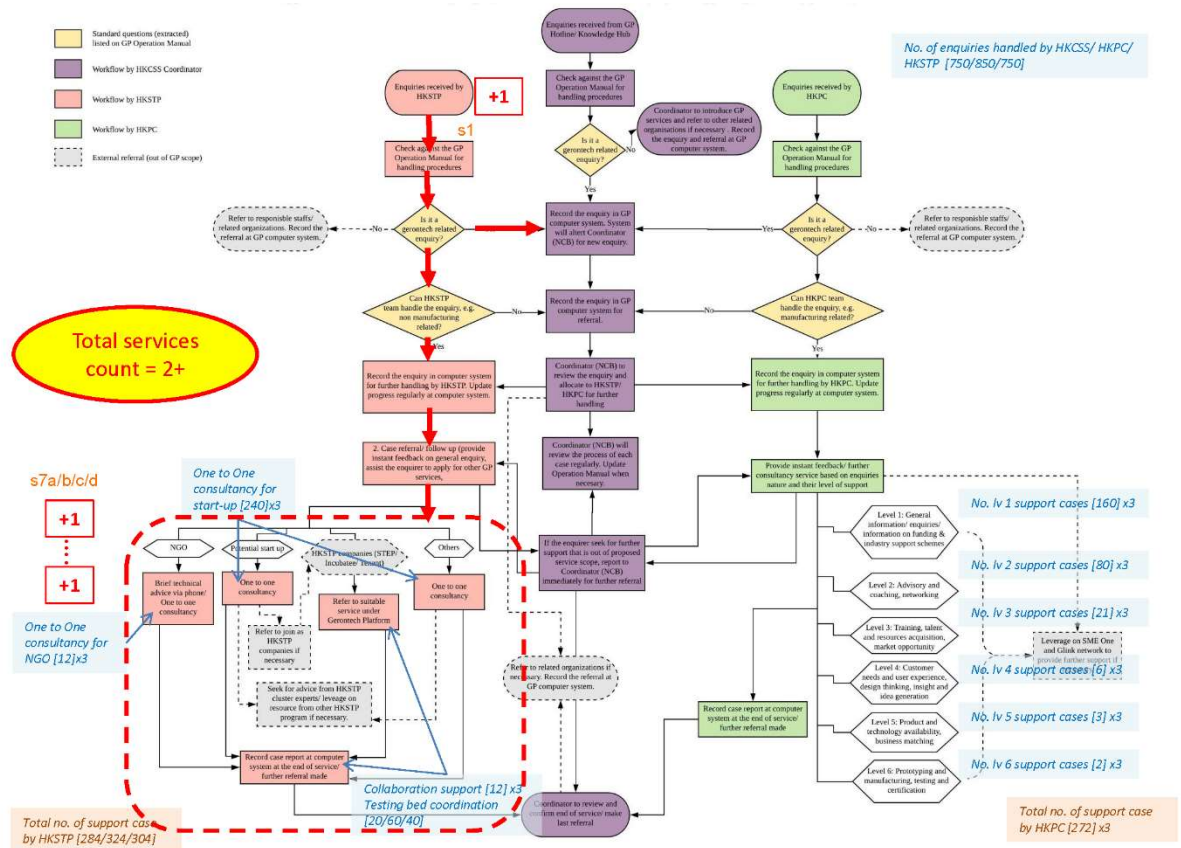
Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
2Ai	When HKSTP receives an enquiry on Gerontech Platform from their network		
	S1	1	1





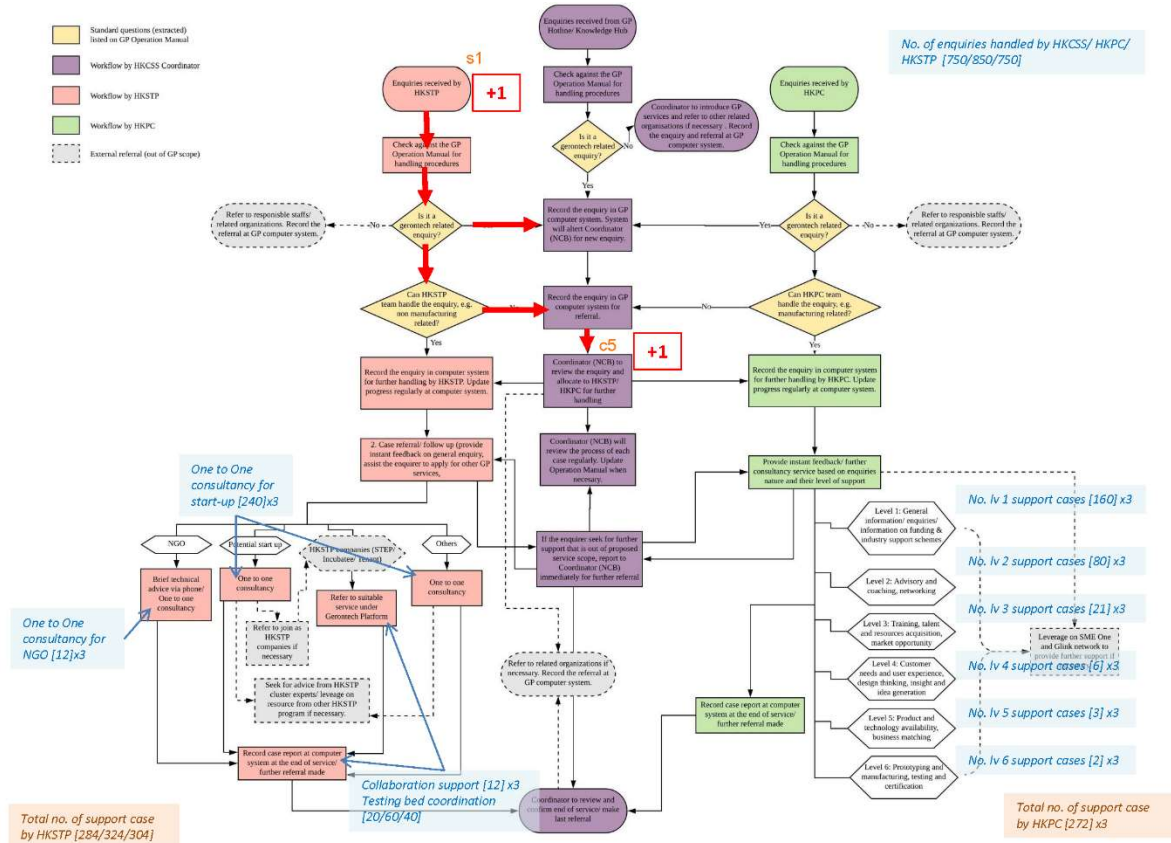
Enquiry cases workflow flowchart no.6

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
2Aii	Support services will be provided and recorded at GP computer system if the support service required fall into HKSTP's scope		
	s1 – s2 – s3 – s4 – s5 – s6 – s7 s7a/b/c/d	+1 +1 +...	2+



Enquiry cases workflow flowchart no.7

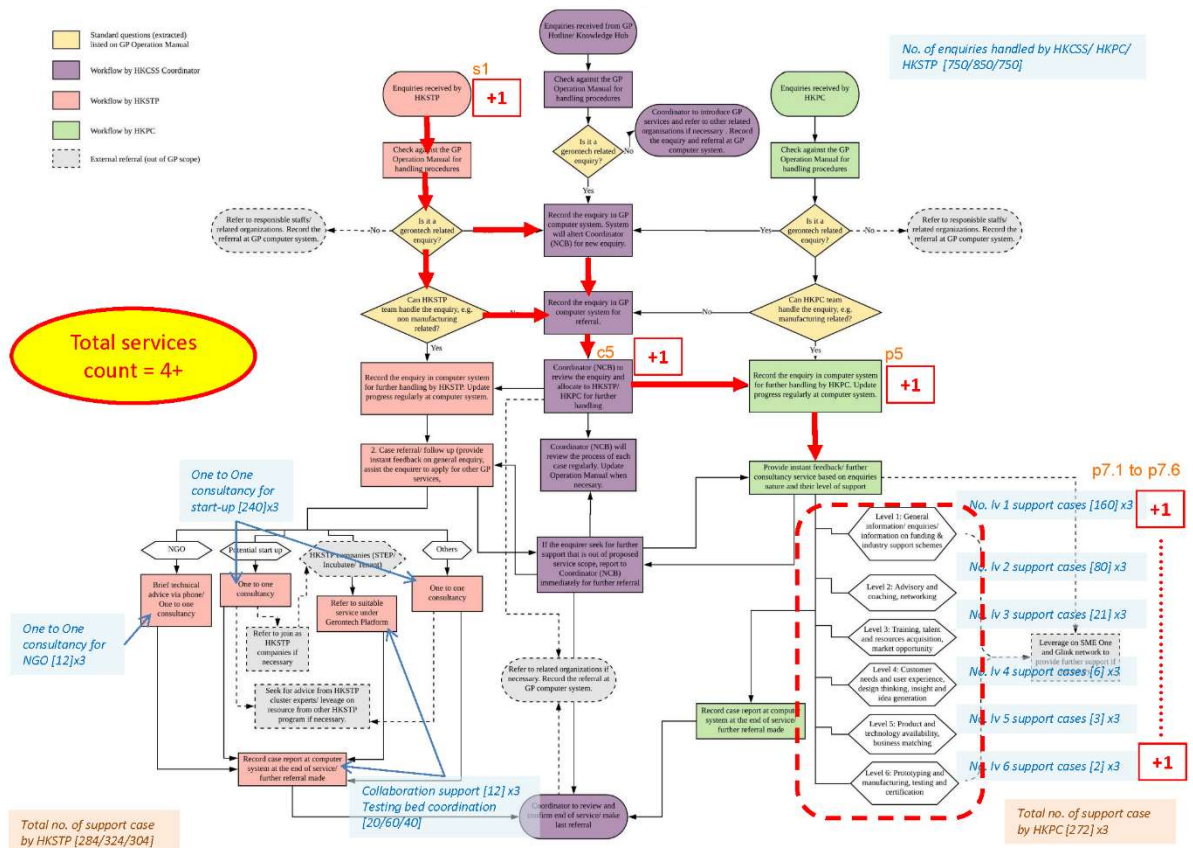
Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
2Bi	Enquirer will be referred to HKCSS if the support service required out of HKSTP's scope		
	s1 – s2 – s3 – s4 – c3a – c4 – c5	2	2





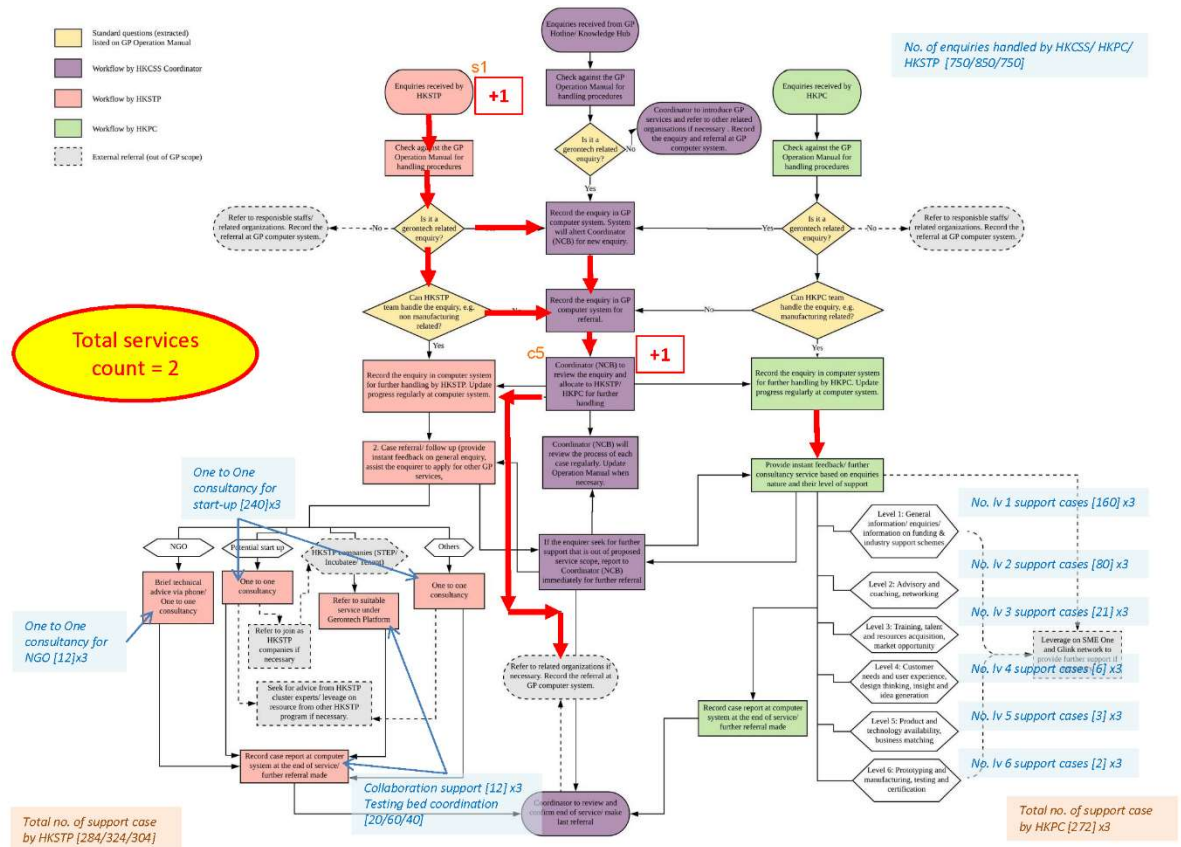
**Enquiry cases workflow flowchart no.8**

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
2Bii	HKCSS refers enquirer to HKPC for further support		
	s1 – s2 – s3 – s4 – c3a – c4 – c5 – p5 – p7.1/2/3/4/5/6	+1 +1 +1 +1 + ...	4+



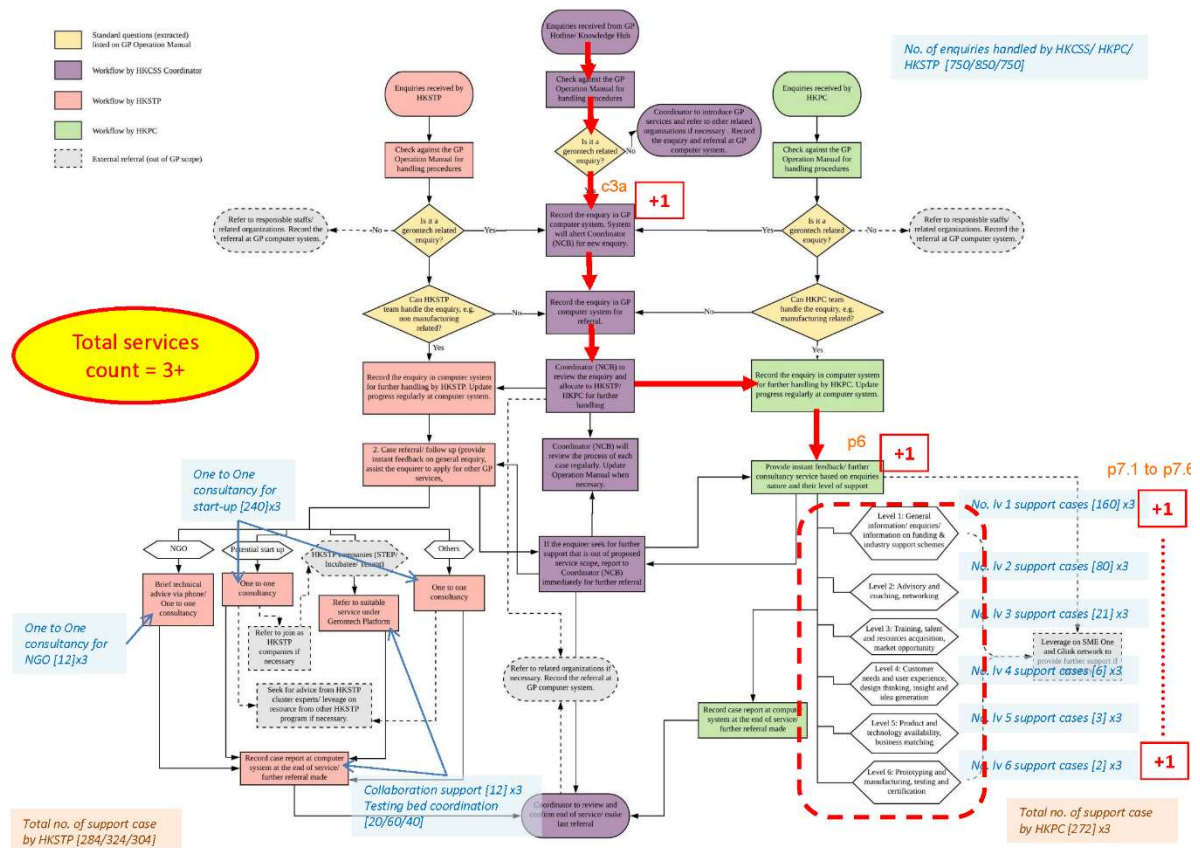
Enquiry cases workflow flowchart no.9

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
2C	HKCSS refers enquirer to related organization for further support		
	s1 - s2 - s3 - s4 - c3a - c4 - c5 - e2	2	2



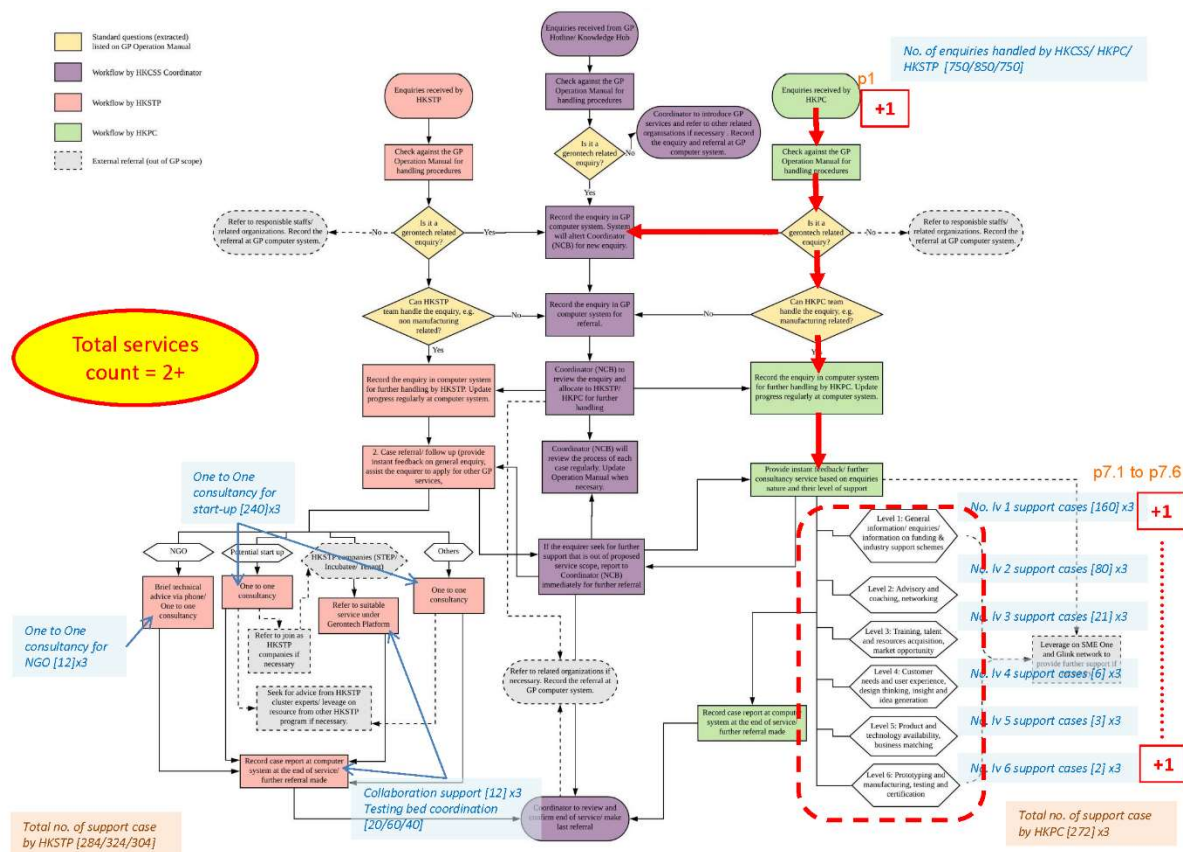
Enquiry cases workflow flowchart no.10

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
3	When HKCSS receives an enquiry from a product developer via Hotline/Knowledge Hub and refers to HKPC for further support		
	c1 - c2 - c3 - c3a - c4 - c5 - p5 - p6 - p7.1/2/3/4/5/6	+1 +1 +1+...	3



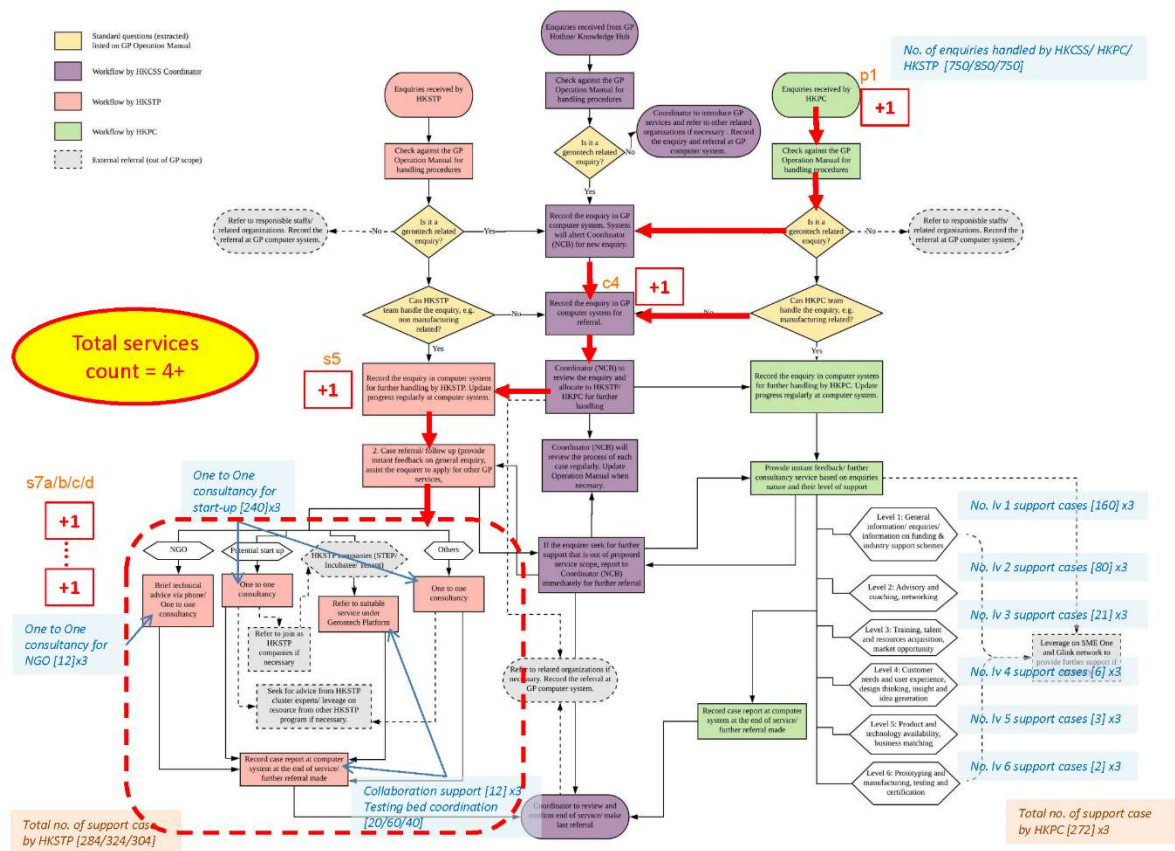
Enquiry cases workflow flowchart no.11

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
4A	When HKPC receives an enquiry on Gerontech Platform and provides support service within their scope		
	p1 – p2 – p3 – c3a – p4 – p5 – p6 – p7.1/2/3/4/5/6	+1 +1 + ...	2+



Enquiry cases workflow flowchart no.12

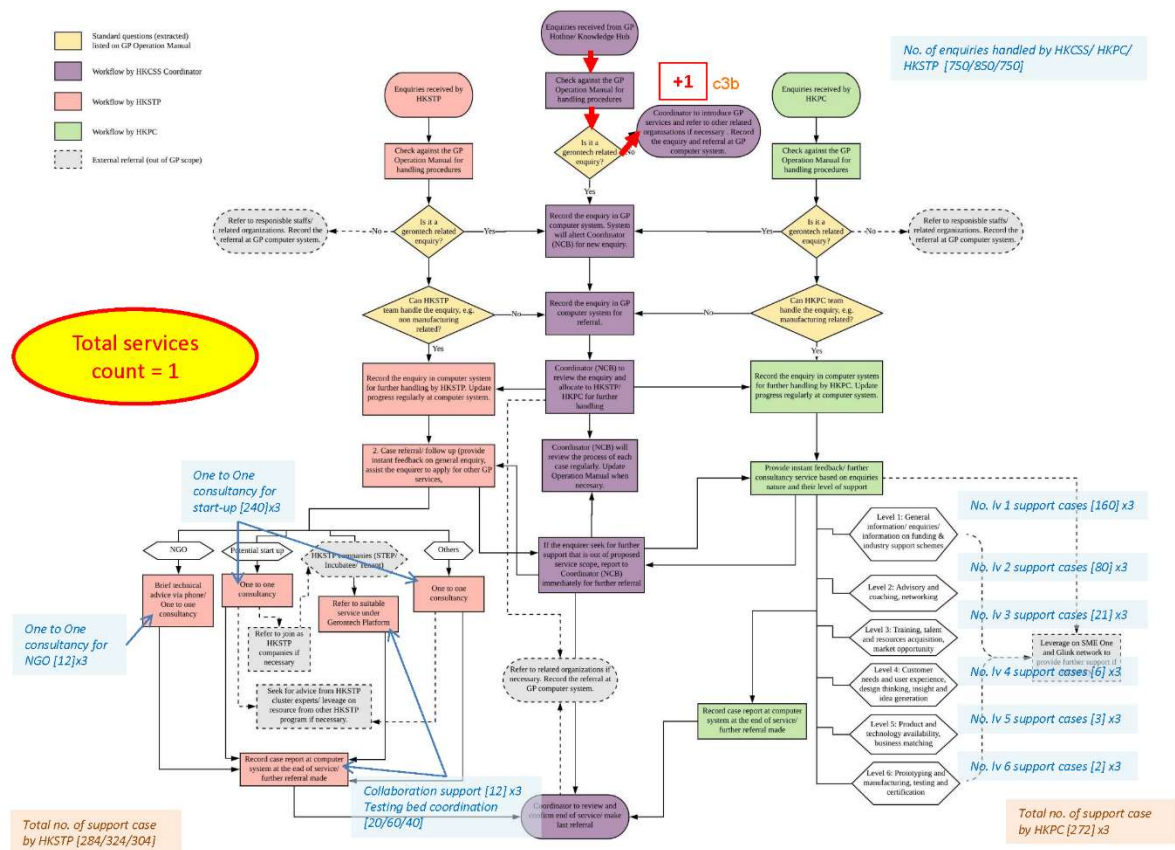
Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
4B	When HKPC receives an enquiry on Gerontech Platform from their network and refers back to HKCSS/HKSTP		
	p1 – p2 – c3a – c4 – p4 – c5 – s5 – s6 – s7a/b/c/d	+1 +1 +1 +1 +...	4+





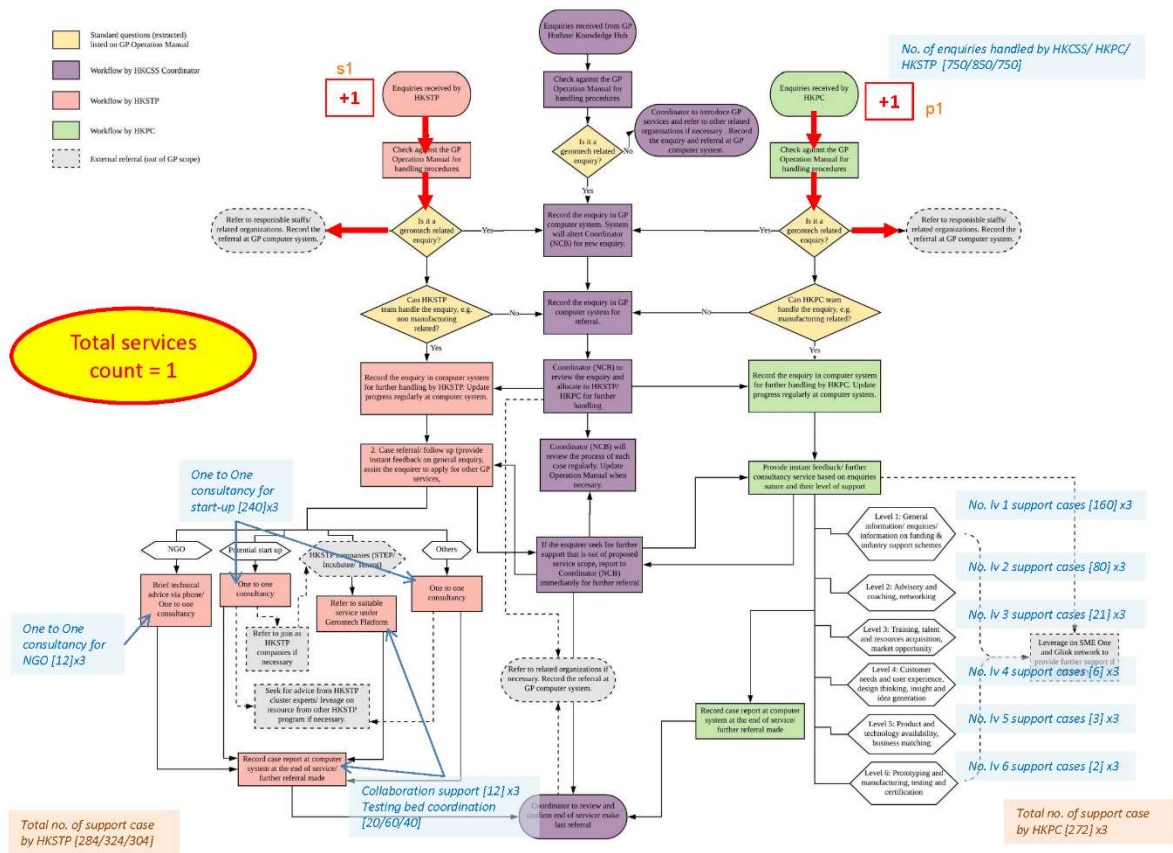
Enquiry cases workflow flowchart no.13

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
5A	When HKCSS receives an enquiry refer out to other related organizations for non-GP service		
	c1 – c2 – c3 – c3b	1	1



## Enquiry cases workflow flowchart no.14

Scenario	Handling Steps no. in Workflow	The addition of the number of KPI counts	Sum of KPI count
5B	When HKSTP/HKPC receives an enquiry refer out to other related organizations for non-GP service		
	s1 – s2 – e1 or p1 – p2 – e1	1	1



## Appendix C. Reports and Statistics

Module	
ECMM:	Enquiry Case Management module
MMM:	Members Management module
EMM:	Event Management module

### Statistics - HKPC

	Service item	Deliverable/ KPI	Module	Requirement Specification no.		Handling Step
1	Enquiries handling	No. of enquires handled	ECMM	3.3.4.2.1	n	p5
2		No. of company/ organization/ association register for GP membership	MMM	3.2.2.1.5		
3	6 level of support	No. of companies receiving support services	ECMM	3.3.4.2.1	n	p5
4		No. of support cases handled (excluding first-time resolved cases)	ECMM	3.3.4.2.1		p5
5		No. of lv 1 support cases (General information on various funding & industry support scheme and cases referral / follow-up)	ECMM	3.3.4.2.3	g	p7.1
6		Service hours for lv 1 support cases	ECMM	3.3.4.2.3	g	p7.1
7		No. of lv 2 support cases (Advisory, coaching and networking)	ECMM	3.3.4.2.3	g	p7.2
8		Service hours for lv 2 support cases	ECMM	3.3.4.2.3	g	p7.2
9		No. of lv 3 support cases (Training, talent and resources acquisition, market opportunity)	ECMM	3.3.4.2.3	g	p7.3
10		Service hours for lv 3 support cases	ECMM	3.3.4.2.3	g	p7.3
11		No. of lv 4 support cases (Customer needs & user experience, design thinking, insight	ECMM	3.3.4.2.3	g	p7.4



	Service item	Deliverable/ KPI	Module	Requirement Specification no.		Handling Step
		& idea generation)				
12		Service hours for lv 4 support cases	ECMM	3.3.4.2.3	g	p7.4
13		No. of lv 5 support cases (Product & technology availability, business matching, consultation)	ECMM	3.3.4.2.3	g	p7.5
14		Service hours for lv 5 support cases	ECMM	3.3.4.2.3	g	p7.5
15		No. of lv 6 support cases (Prototyping & manufacturing, testing & certification)	ECMM	3.3.4.2.3	g	p7.6
16		Service hours for lv 6 support cases	ECMM	3.3.4.2.3	g	p7.6
17	Gerontech field trial support	No. of support cases	ECMM	3.3.4.2.3		
18		No. of visits	EMM	3.2.2.4.1	-	-
19	Local study visit	No. of participants of local study visit (HKPC)	EMM	3.2.1.3.9	-	-
20		Satisfactory rate of local study visit's participants	EMM	3.2.1.3.9	-	-
21		No. of overseas study visit	EMM	3.2.2.4.1	-	-
22	Overseas study visit	No. of participants of overseas study visit	EMM	3.2.1.3.9	-	-
23		Satisfactory rate of overseas study visit's participants	EMM	3.2.1.3.9	-	-
24		No. of speaker invited	EMM	3.2.2.4.8	-	-
25	Annual Summit	No. of participants of the annual summit	EMM	3.2.2.4.9	-	-
26		Satisfactory rate of the annual summit	EMM	3.2.2.4.9	-	-

#	Service item	Deliverable/ KPI	Module	Requirement Specification no.		Handling Step
1	Enquiries handling	No. of enquires handled	ECMM	3.3.4.2.1	n	s5
2		No. of company/ organization/ association/ individual register for GP membership	MMM	3.2.2.1.5	-	-
3	Support services	No. of start-ups receiving one-to-one consultancy services	ECMM	3.3.4.2.2	a	s7b
4		No. of support cases handled (excluding first-time resolved cases)	ECMM	3.3.4.2.2	e	s11
5	One-to-one consultancy	One-to-one consultancy for start-up: technical aspect to guide the start-up to turn an idea into solid idea / prototype / product (times)	ECMM	3.3.4.2.2	e	s11
6		One-to-one consultancy for start-up: sales & marketing aspect to guide the start-up to market its solid idea / prototype / product to potential customers (times)	ECMM	3.3.4.2.2	a	s7b
7		One-to-one consultancy for NGOs: technical advice to guide the NGOs on how to incorporate gerontechnology in its operation (no. of NGOs)	ECMM	3.3.4.2.2	a	s7a
8	Collaboration support	Collaboration support to connect non-HKSTP's companies with HKSTP's companies on development of Gerontech products (cases)	ECMM	3.3.4.2.2	a	s7c
9	Testing bed coordination	Testing bed coordination: technical aspect (times)	ECMM	3.2.2.4.1		
10		Testing bed coordination: sales & marketing aspect (times)	ECMM	3.2.2.4.1		

#	Service item	Deliverable/ KPI	Module	Requirement Specification no.		Handling Step
11	NGO visits	No. of NGO visits	EMM	3.2.2.4.1	-	-
12		No. of participants of NGO visit	EMM	3.2.1.3.9	-	-
13		Satisfactory rate of NGO visit's participants	EMM	3.2.1.3.9		
14	Theme-based seminars / workshops	No. of theme-based seminars / workshops	EMM	3.2.2.4.1	-	-
15		No. of participants of theme-based seminars / workshops	EMM	3.2.1.3.9	-	-
16		Satisfactory rate of theme-based seminars / workshops' participants (HKSTP)	EMM	3.2.1.3.9		

#	Service item	Deliverable/ KPI	Module	Requirement Specification no.		Handling Step
1	Enquiries handling	No. of enquires handled	ECMM	3.3.4.2.1	g	c3a
2		No. of company/ organization/ association/ individual register for GP membership	ECMM & MMM	3.2.1.3.9	-	-
3	Annual Summit	No. of participants of annual summit	EMM	3.2.1.3.9	-	-
4		Satisfactory rate of annual summit	EMM	3.2.1.3.9		
5	Briefing/ trainings/ meetings	No. of participants	EMM	3.2.1.3.9	-	-
6		Satisfactory rate	EMM	3.2.1.3.9		
7	Stakeholder engagement events	No. of events	EMM	3.2.1.3.9	-	-
8		No. of participants per event	EMM	3.2.1.3.9		
9		Satisfactory rate of participants	EMM	3.2.1.3.9	-	-